

HINTS

ON

OBSTETRIC PRACTICE,
WITH ILLUSTRATIONS,

BY

JOHN BREMNER, SURGEON,
NEWTYLE.

PART I.

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The general term, " OBSTETRIC PRACTICE," given to the Work, though in certain respects objectionable, seemed the most appropriate that could be devised.



TO

JOHN THATCHER, ESQ., M.D.

LECTURER ON THE PRINCIPLES AND PRACTICE OF MIDWIFERY, EDINBURGH.

SIR,

IN dedicating to you my obstetric experience respecting the Virtues of Venesection and Opium.—remedies which stand paramount to most others in the alleviation of human suffering, under a countless variety of forms and degrees,—I feel sensible that I am but tendering to you a recital, with the merits of which you have long possessed a well-earned acquaintance. Should it, however, upon perusal appear that I have, in any important measure, departed from the ordinary rules laid down for their administration, it must also be borne in mind, that the seeds and early germs of the practice were chiefly of your own implanting and nurture; and that the same solicitude for the welfare of the parturient female, which was so unceasingly, and with such well-directed pathos, inculcated by yourself only, has proved the cause why they have undergone the change alluded to during their after growth.

THE AUTHOR.



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P R E F A C E.

THE following Inquiry,* respecting the salutary effects of two of the most important remedies in counteracting the morbid tendencies connected with the pregnant state of the human female, refers wholly to the labours of a former sphere of practice ; but, chiefly owing to the introduction of Æther and Chloroform into the Obstetric department, the sheets, after being fully completed, have been permitted to rest upon the shelves of the printer for nearly the space of two years.

In laying it now before the Profession, permission is humbly entreated to state, that whilst an apology is due on account of the imperfect manner in which it is to be feared the information desired to be communicated has been conveyed, in consequence of inaccuracies in the record of cases, and other circumstances ; yet a hope is entertained that the outlines and general arrangement will be found such as to enable the practitioner whose aim it is to lay hold upon the truth, to discover whatever is useful amidst the surrounding rubbish, and, at the same time, to preserve him from an exercise of the measures recommended, which will prove in any degree inimical to the interests of his patients. The feelings of the Author, he imagines, could not be more effectually injured than by intimation received, that opinions had been formed as to the nature of his announcements, before having subjected them to an ample and impartial trial.

In whatever manner an enlightened medical judicature may decide in this respect, the conviction of their utility, as well as the recollection of the success which almost invariably crowned the issue of every case where it was possible to put them in operation within any thing like reasonable bounds, have been such as liberally to compensate for the toil and anxiety experienced during many a sleepless night, and would not at the present moment be

* Forty pages of which have already appeared in the Northern Journal of Medicine.

exchanged for any mercenary or meritorious reward. Had the case been otherwise, no allurements in the way of fame, or of a lucrative description, would have determined him in favour of the popular mania for book-making.

With the view, as far as possible, to lessen the charge of enthusiasm, which, in all probability, will be preferred against him,—an accusation, he confesses, but too often deservedly earned by the advocates of particular medicines or measures,—he begs it expressly to be understood, that should the inefficiency of those he is about to submit to consideration, be incontrovertibly proved by a competent tribunal, or superseded by others of a still superior order for the accomplishment of the end specified, he shall be amongst the first to retract his own, and establish the validity of those of his more fortunate rivals.

As to the matter of necessity which existed for any production such as the present, in addition to the many respectable treatises already in the hands of the profession, the opinion entertained is, that whilst they abound with important *general* rules, relating to the state of the pregnant, but more especially the parturient female, and also the treatment of labour amidst the different degrees of difficulty under which it but too often presents itself; they are deficient in the determination of the data whereon these various sources of difficulty are founded. Lest, however, a too anxious desire for criticism may be imagined to bear any part in the resolution thus formed, it deserves to be stated, that long after the plans in question had been maturely acted upon, they were again repeatedly reviewed at the bed-side, and carefully and candidly compared with the opinions advanced by these most highly-privileged authorities, before I could, with any degree of confidence, feel myself warranted in drawing conclusions, which, if correct, seemed so far to have escaped their observation, or were expressed in terms not so intelligible as could have been desired. This, it is hoped, will appear evident, on points wherein they individually or collectively agree.

Taking this view of the case, the diversity which is to be met with in the modes of practice inculcated by these different authors, as well as the variable results of the practices combined, are easily explained.

The statements here recorded, refer chiefly to the distinctions

proposed, regarding the nature and origin of the several resisting causes of labour. With respect to the illustration of these by cases, there cannot, it is imagined, exist a division of opinion.

The utility of such a plan is well portrayed by the late Dr Hamilton, in the Preface to his “Select Cases on Midwifery,” published 1795, where he states—“Many advantages result from the publication of cases. The characteristics of diseases are thereby impressed on the minds of young practitioners, the ordinary rules of practice are illustrated, and the value of expedients, that are not universally sanctioned, is ascertained. In short, by this means the experience of the individual is rendered generally useful.”

In the event that any of the circumstances connected with the detail of the cases were considered so remarkable as to border on the marvellous, a pledge is given that these shall be again performed in the presence of those who feel thus sceptically disposed, could the opportunities be furnished for so doing.

Should the results of the ensuing discussion be such as to augment the general stock of obstetric knowledge, and consequently to contribute to the benefit of the parturient female, it is in contemplation to publish, as a Second Part, a Dissertation on Artificial Delivery, comprising the nature of the cases requiring aid from the forceps; and also an attempt to draw the line of demarcation betwixt those suitable for the different descriptions of these instruments, viz., Long and Short; together with a definition and illustration of the several affections, termed IMPACTION and ARREST; when frequent opportunities will be afforded of exhibiting the effects of neglect and mal-administration of the remedies about to be treated of; as also a variety of other particulars.

To those gentlemen who kindly favoured the Author with the use of books, in order to facilitate his investigations, he embraces this opportunity of expressing his sincere thanks; and in an especial manner to Dr Forbes of London, for the prompt and effective manner in which he responded to the inquiry addressed to him, through the medium of his respected and learned friend, Dr West.



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VENESECTON AND OPIUM

IN

OBSTETRIC PRACTICE.



IN a succession of papers on the subject, it is the intention of the writer to lay before the profession the results of his experience during a lengthened practice, chiefly respecting the efficacy of venesection and opium, exhibited agreeably to a systematic plan in obstetric practice generally, but more especially in that description of cases which constitute the class of labours usually termed difficult or laborious.

In order to accomplish his design the more effectually, he considers it necessary to present a statement of the opinions and modes of practice recommended and sanctioned by the most intelligent writers on midwifery at the present day, as well as those who have flourished, since it began to attain the elevated position it now holds amongst the sciences ; and also an abridged history and leading diagnostic symptoms of what he believes to be the genuine nature of the various affections by which the progress of parturition is compelled frequently to deviate so far from what is regarded as its more natural course and limits.

He, however, feels it incumbent on him to state, that, restricted as he is, to the well occupied pages of a monthly journal, he must inevitably pass over many circumstances, which, he imagines, might have contributed somewhat to the common stock of knowledge, and could not have failed to have rendered his intended illustrations much more complete.

When we take into consideration, that the figure of woman is the erect, and consequently, that there is demanded a more exact scale of admeasurement betwixt the proportions of the foetus and those of the pelvis through which it has to pass, together with

greater complication of structure, and more nice adjustment of the sexual organs in general, than is found to take place in most of the superior orders of the lower tribes, our wonder need not be excited, that, apart from the anathema which was at first more especially denounced against her regarding the important part she was destined to act in the propagation of the species, the obstructions in the way of parturition, should frequently be such, both in number and magnitude, as materially to augment her sufferings, and render her situation, upon the whole, much more critical and hazardous than theirs.

In addition to these, however, the parturient female often becomes the subject of a source of delay to the free transit of her offspring, by reason of an excited state of the sanguiferous system to which she seems liable, more particularly towards the latter months of pregnancy. Should this be discovered, and the proper remedies resorted to, so long as the system at large only is affected, its effect in retarding the progress of child-birth, if at all perceptible, will be extremely small.

Should it, however, have existed in any considerable degree for a period of some duration, without these measures having been adopted previous to confinement, the chances are ten to one, but that from being at first restricted to the circulating fluid, it has ere that crisis, settled down upon some important organ, the consequences of which will, with few exceptions, be such as greatly to increase her bill of "pains and penalties," and protract her delivery, not unfrequently, to a fearful length, not to speak of the imminent danger to which the lives of mother and child are so signally exposed, and, in but too many instances, become either singly or combined, the untimely victims.

Concerning venesection, as a remedy at once fully adapted to remove the state of excitement now spoken of, when the existence of such has been satisfactorily ascertained, along with many of its injurious tendencies, it is considered unnecessary to enter upon any discussion, seeing it differs nothing from a similar affection of the system, under circumstances entirely the reverse, and that however much it may be calmed and alleviated by other means, we will seldom, if ever, be enabled to subdue it without the aid of the lancet.

Before proceeding further in the inquiry, which is designed to be made respecting the virtues of venesection in obstetric practice, it is here deemed expedient to mention, that the principal topics selected for investigation are, 1st, The circumstances requiring it. 2d, The extent to which it is to be carried, including certain remarks respecting its performance; and, 3dly, The period at which the operation may be had recourse to, in order to derive from it the most eminent services to the parturient female. An arrangement nearly similar will apply to the exhibition of opium, the properties of which it is purposed to discuss in succession,

when a humble attempt will be made to illustrate and confirm the utility of the respective modes of practice in each of the several causes which are found to retard the natural course of labour, where their employment has been suggested or confirmed by experience, by an appeal to cases as carefully selected and condensed as possible.

Like most others, this invaluable remedy had, no doubt, at the period when medical science was in a low and rude condition, been had recourse to with very little discrimination, and consequently with few beneficial results in the practice of midwifery.

In vol. i. of Dr Smellie's works, at p. 131, are the following directions :—" If the patient be of a plethoric habit, with quick strong pulse, the contrary method (to that of prescribing stimulants) is to be used, such as venesection," &c. And, upon consulting a case to which he refers, at p. 199, vol. ii., he writes as follows :—" She was a woman turned of forty, in labour with her first child, of a strong and healthy constitution, though of a thin habit; her pulse was quick, full, and hard—her skin hot and dry," &c. Under these circumstances, she was bled to twelve ounces.

Dr Denman, in his Dissertation on Difficult Labour, says,— " When there is any unusual pain in the region of the uterus, greater than or different from that which may be considered as one of the common effects of pregnancy, or labour, there is generally an increase of that feverish disposition which, in a certain degree, is perhaps natural to all women with child; it will then be necessary to take away small quantities of blood," &c. At p. 25, he again remarks, " It does not seem necessary to bleed every patient on the accession of labour. For some, it must be highly improper. But when the feverish symptoms become violent, it is, I believe, universally proper, the quantity of blood being suited to the degree of fever and constitution of the patient."

At p. 180, of the late Dr Gooch's Practical Compendium of Midwifery, by Skinner, are to be met with directions very similar to those related above. At p. 185, speaking of the narrow or contracted state of the soft parts, he observes—" In a first labour, the os uteri dilates slowly, but more quickly in a young girl of eighteen or twenty, who is healthy and vigorous, than in a woman at a more advanced period of life. In women of forty years of age or more, if they have never before had a child, the process of dilatation is very tardy—the os uteri, though not constantly, found rigid and dry." After intimating that the slow dilatation of the aperture is in certain cases the effect of disease, and that the cervical portion is occasionally the seat of a very marked degree of irritative inflammatory action, he goes on to state—" In slight cases of this kind, the warm salt water injections before mentioned, are of great service; but when this peculiar affection of the parts

xists in a greater degree, bleeding is a still better remedy. When, therefore, the labour is long retarded from this cause, I advise you to take away about fourteen ounces of blood."

At p. 188 of Dr Campbell's treatise, published in 1833, the following paragraph occurs:—"The most frequent cause by which, in a primary labour, the first stage is retarded, is rigidity of the os uteri, or literally speaking, that unyielding disposition of the aperture usually met with in healthy young females, as also in those who are well advanced in life, before they become mothers. In this condition the os internum feels projecting, smooth, and polished, as if covered by a piece of thin bladder. In such cases, the sufferings of the patient may be protracted from ten to sixteen hours before the first stage has made any considerable progress. The most marked benefit will be derived from venesection carried the length of causing a tendency to syncope." Nearly the same words, with regard to venesection, occur at p. 190, when describing an undeveloped state of the cervix.

Again, at p. 198, after unfolding the circumstances which take place in those cases where labour is protracted chiefly in consequence of an unyielding condition of the parts which close up the outlet, he subjoins,—“If the woman has not been bled in the previous part of the process, the greatest advantage may now be expected to accrue from the remedy; and occasionally where it has been resorted to, it becomes necessary to repeat it; but in this we are to be regulated by the condition of the pulse, on which, before we desist, we are invariably to make an impression.”

In Dr Burns's work, 9th edition, p. 442, we read as under:—"The pains in tedious labour, connected with defective uterine action, may be continuing regular, but weak, not from exhaustion, but rather from the uterus not exerting the power it has; or there may be a tendency to remit, the pains coming on seldom. It is quite a mistake to suppose that defective, and what may be called restrained action, necessarily depends on debility of the uterus."

In this state of things, he remarks—"If there be heat of the skin, full pulse, with thirst and restlessness, perhaps starting, and especially if the os uteri be not relaxed, and the parts tight and rigid, venesection will be of great benefit, by making the uterus act with more freedom, and its mouth yield with greater readiness."

Again, at p. 443, after alluding to the effect produced on the uterus by hemorrhage, previous to delivery of the child, along with some additional observations on an excited state of the soft parts, an irregular and inefficient, though severe nature of the pains, as well as the premature rupture of the membranes, he remarks, "that," under these circumstances, "blood-letting is safe, and may be expected to do good;" but almost immediately adds,—"It is, however, a remedy, which, if imprudently employed, may do much mischief;" and particularly takes notice of its nox-

ious tendency in constitutions much enfeebled, and cases of exhaustion.—“ In natural labour,” continues he, “ it is neither necessary nor proper ; in labour not greatly protracted, nor unusually severe and slow in its steps, it is not to be resorted to.”

After stating a variety of circumstances, at p. 459, principally relating to the unyielding condition of the soft parts, and the length of time the labour may on an average be expected to occupy, he once more proceeds :—“ Blood-letting is the best remedy in such cases, and its effects are almost immediate. It is so beneficial, and so much to be depended on, that it is never to be omitted in any case of labour protracted from rigidity, unless the patient be much debilitated. Indeed, we ought not in cases of decided rigidity to wait till the labour have been tedious, but should bleed to prevent that. It is even useful, if resorted to, before labour.”

The late Professor Hamilton, in 2d edition of his *Observations on Midwifery*, p. 136, when speaking of the interference necessary in cases where the liquor amnii becomes prematurely discharged, expresses himself in the following terms :—“ When the pains take place, if the dilatation prove tedious, that is, if the continuance of strong pains for six or eight hours do not occasion its advance to such a degree as to give reason to expect its completion within a few pains, it becomes necessary to interfere lest the patient’s health should suffer ;” and farther adds—“ Generally speaking, venesection to the extent of from sixteen to twenty-four ounces of blood, by weight, furnish the readiest means of promoting dilatation.” With the preceding may be contrasted the directions contained in p. 214—“ Irregular distributions of blood must obviously tend both to diminish the muscular powers of the uterus, and to lay the foundation for serious injury in some of the important viscera. But when this circumstance takes place during labour, it is almost invariably the fault of the practitioner ; for there are decided marks denoting the approach of this irregularity of vascular action, which should lead to the adoption of the appropriate means of preventing it.”

In 1st edition of Dr F. H. Ramsbotham’s work, p. 243, is recorded the history of a case of primipara, where parturition was completed with comparative ease and safety, in from four to five hours ; but who in her second confinement, the degree of rigidity of the os uteri was such, that notwithstanding venesection was employed three times to fainting, together with the liberal use of opium, rupture of its right side took place after labour had been protracted for fifty hours from the evacuation of the liquor amnii, and in whose case death took place on the fourth day.

“ It is an instructive case,” adds Dr R., “ because it proves, that although an os uteri has relaxed and readily dilated in a first labour, it may in an after case possess a high degree of unnatural rigidity, and that, too, independently of any discoverable disease

in the organ itself. It proves, also, that the much vaunted power both of bleeding and opium will not always avail in removing rigidity."

At p. 251, after informing us of the caution with which his father used the lancet during the first stage of labour, in consequence of the after risk of flooding, and at the same time protesting his faith in, and determination to abide by the counsel and example of one so intimately connected and worthy, farther proceeds:—"With regard to venesection, then, as a means of relaxing the os uteri, I look upon it as powerful, but not devoid of danger: to do good it must be carried far enough to make an impression on the general system; for it is idle to expect advantage will be derived from it, unless syncope, or, at any rate, a degree of faintness be produced."

Regarding the treatment to be employed in a rigid state of the vagina and perineum, Dr R. writes—"Here, also, it is our duty to endeavour to relax the rigid structures; with this intention venesection has been had recourse to as liberally, and almost as universally as under rigidity of the os uteri itself; but it certainly does not possess the same power in this as in the case last under consideration. I am inclined to limit the use of the lancet to those instances where the rigidity is combined with heat, tumefaction, unusual tenderness, and unnatural dryness—symptoms which denote that injurious pressure hath taken place, and that inflammatory action has commenced."

The remarks of Dr Rigby, p. 211, with regard to the influence exerted by venesection, over the general system and organs more immediately concerned in child-birth, are as follow:—"When the labour is protracted by a state of general plethora, or local congestion, the expelling powers are not only enfeebled by the engorged state of the uterine circulation preventing effective pains, but the resistance to the passage of the child is increased by a similar condition of the soft passages, which are swollen and turgid with blood. It is in these cases that bleeding effects such a sudden and complete change; the pulse loses its oppressed character, and rises in point of strength; the uterus loses the thick solid feel which it had before; its contractions become active and powerful; the os uteri dilates; the passages become soft and yielding, and the whole process assumes a different character. By careful observation, this state can easily be discovered before labour has actually commenced; in which case much useless suffering may be prevented by previously reducing the circulation to a proper standard, and thus fitting the uterus for the exertions it has to undergo."

Dr Blundell, at p. 388, after presenting us with a very lengthened and almost frightful, although in many instances at least, by no means an exaggerated account, of such who are unhappily rendered so, in consequence of a rigid state of the os and cervix

uteri, and to the studious perusal of which in the work itself, the writer would urgently request the young and aspiring practitioner, thus argues, relating to its cure—"In the labours of rigidity it should be our first indication to produce, if possible, a laxity of the soft parts; but, unhappily, we are in possession of no very effectual means by which an indication of this kind may be accomplished. When women have large uterine bleedings, these generally produce much relaxation of the passages. Hence, in these labours of rigidity, we are advised to take a hint from this observation, and to make a free use of the lancet. By some it has been recommended, that a month before delivery, ten or twelve ounces should be taken away, and in a fortnight, ten or twelve more; and should the woman be robust when delivery commences, to bleed more copiously.

"To obtain the full effect from the relaxing powers of depletion, you ought by all means to perform your bleedings in the commencement of the labour; and this promptitude clearly becomes justifiable, when it is obvious, from the degree of rigidity, that to this venesection we must ultimately have recourse."

UPON a review of the opinions of the able authors above selected for consideration in No. XX. of this Journal, respecting the employment of venesection in obstetric practice generally, the diversity which exists on certain topics cannot fail to arrest the attention of even superficial observers; and would seem, before being subjected to the refining processes of minute investigation and inductive experiment, to warrant the conclusion, that they cannot, in their allied state, consistently harmonize with the characteristics of simple unalloyed truth.

Agreeably to the plan already specified, those circumstances demanding the abstraction of a portion of the vital fluid claim a preference to our attention.

By means of special reference to the extracts in question, they may, the writer imagines, be enumerated and classed in the following order:—1st, A state of plethora or excitement of the sanguiferous system generally; and which, although variously expressed, appears to be more particularly taken notice of in the works of Drs Denman, Hamilton, Rigby, and perhaps Dr Gooch (see p. 180.) 2d, A state of excitement, or, as it is commonly termed, "rigidity" of the os uteri v. internum, and also of all the parts connected with the second stage of labour, on which the greater number of the writers quoted, with the exception of Drs Smellie and Denman, dwell at considerable length. 3d, An unyielding condition of the uterus in consequence of an undeveloped band of fibres in its cervix, described in the writings of Drs Gooch and Campbell, but more especially in those of Dr Hamil-

ton. *4th*, A partial or spasmodic state of contraction of the body or fundus of the uterus, commonly denominated irregular action—a description of which is given by Dr Burns, p. 454; but more fully by Dr Rigby, p. 212. *5th*, Premature rupture of the membranous sac, stated by Drs Hamilton, Burns, &c.

Impressed with the idea, that to the preceding list might be expected to be added the various concomitant circumstances mentioned by the respective authors, as contributing to the necessity for the evacuation of blood, (*viz.*) heat of surface, quick, full, or strong, hard and sharp pulse, thirst, restlessness, tumefaction, unusual tenderness, &c., the writer would beg to state that he deems such a procedure, not only unnecessary, but highly improper, seeing they never occur as idiopathic affections, but only symptomatic of the state on which those above described depend; forming, in proportion to their number and intensity, the criteria by which to judge of the degree and extent of surface over which the same may have become disseminated.

With the view of simplifying, as far as possible, the illustrations about to be made, the present is considered as the most proper season for the introduction of the history of the resisting causes of labour purposed in last paper, and which will be understood to be identical with those requiring the employment of the lancet, here submitted to consideration.—

1st, Of plethora or general excitement.

The writer supposes that the terms plethora or excitement, though strictly similar in their nature and effects, are nevertheless capable of a division, so far as to limit their application to two diversified states of the system, insomuch, that while one of plethora cannot properly exist apart from that of excitement, the latter affection may, and is often met with in practice, where the former is entirely absent.

A state of plethora, therefore, he conceives, is most correctly described, when it is made to include that of excitement or inflammation combined with one of a redundancy of the sanguineous fluid, and perhaps also of adipose matter; and from reasons which at first view must be obvious to the discerning practitioner of midwifery, can seldom, in the full sense of the word, occur but amongst females of sound and vigorous constitution, and previous good health.

That of simple excitement, on the other hand, he believes himself warranted in asserting, frequently lays claim to as its subjects those naturally of a wholly opposite character, or who may have become greatly enfeebled in consequence of former repeated pregnancies, with the addition, it may be, of tedious deliveries; or perchance, from having been the victims of great bodily exertion, or long and deep-rooted disease, and in whom the powers of the circulation are scarcely adequate to the requisite demands.

The line of demarcation betwixt the extremes now mentioned,

and the medium state from which they emerge, may in many cases be difficult to draw, neither is it matter of importance it should be otherwise; but the preceding distinction has been considered necessary to be made, because the writer imagines it by no means an unpopular opinion, more especially amongst young practitioners, that in delicate and weakly individuals, venesection, if not improper and dangerous, is at least destitute of use, although there can be no doubt it has, in such instances, been repeatedly carried to the opposite extreme.

Without adverting farther to distinctive appellations, it may be remarked that the general period at which this state of excitement becomes any wise prominent, the writer has found to be principally during the seventh month of utero-gestation, when the system has become highly surcharged with blood.

He is aware, however, that in laying down this as the rule, it is like most others connected with the *ars medendi*, one liable to many exceptions. For while he has met with a certain proportion of cases wherein it had manifested itself at an earlier period, he has had frequent opportunities of witnessing instances in which it had occurred considerably later; and not a few in which it was found to exist upon the accession of labour, where the smallest suspicion of its presence was not entertained. As to those last mentioned, it is necessary to explain that they were individuals in whom either it was considered to have been wholly subdued, or upon repeated examinations previous to the commencement of labour, had never been discovered; and these cases, but for the subsequent prompt recourse to the lancet, would have been tedious in their progress, and, perhaps, doubtful as to their termination.

The design of being thus minute, is intended to point out the insidious nature of the affection, and the attention with which it requires to be watched.

Symptoms.—The symptoms by which its presence can, in the most of cases, be detected, are a sense of languor over the spirits, together with a constricted state of the body generally, occasional flushings of the face, suffusion of the eyes, loathing of the ordinary quantity of food, thirst, constipation of the bowels, a rather scanty and high-coloured flow of urine, &c.

The surest and most unequivocal indication, however, is the state of the pulse.

This, it will be observed in the list of quotations, is variously described as quick, full, strong, hard, &c. Were it the case that a promiscuous selection of one or more of the distinctions here specified, were found uniformly sufficient to establish the existence of the state of excitement in question, then all doubt upon the subject would speedily be at an end; and the practitioner would only have to distinguish betwixt a development of the gen-

uine characteristics, and those occasioned by his sudden, and, perhaps, unaccustomed appearance at the patient's bedside.

The result of the experience derived from the range of cases which have come under the writer's observation, however, go a considerable length, he is of opinion, to subvert the coincidence of the diversified conditions of the pulse as to the point at issue.

The first in order (*viz.*), an accelerated motion of the circulation is a never-failing attendant on almost every kind and degree of pyrexia or febrile disease, in many of which venesection would not only be unprofitable, but highly injurious—on which account it seems, in its solitary state at least, not entitled to the smallest confidence as a correct indicator of the presence of inflammatory action.

But though insufficient of itself, it may be supposed that when viewed in conjunction with the two succeeding varieties, which seem to differ merely in the mode of expression, its infallibility cannot be called in question.

The solution of the problem, it is obvious, rests solely on the merits of the peculiarity, termed fulness or strength. This at first view to an intelligent observer, must appear very unsatisfactory in its evidence, more especially when it is recollected that, like a state of plethora, it uniformly varies in proportion to the vigour and soundness of the patient's constitution, and her previous exemption from weakness and disease.

Thus have these in their combined state, in the writer's estimation, been long found alike inadequate to establish its reality, even when accompanied with considerable heat of surface, &c.

Not so, however, with respect to the presence of the remaining condition (*viz.*), a state of hardness—a definition which, if not altogether identical with that of sharpness, seems to be very nearly allied.

To obviate any misunderstanding, could such possibly arise from these, the writer would suggest the propriety of substituting that of *incompressible or wiry pulse*—terms which possess the advantage of long sanction and familiarity amongst professional men.

When, therefore, either previous to, or upon the approach of labour, the same is found, whatever may be its situation in other respects, pulsating with rather increased than diminished force upon the application of pressure with the finger, a degree of excitement, greater or less, may almost of a certainty be suspected to exist.

Having, however, been occasionally deceived in certain cases where the examination was conducted with the patient in bed, the writer has for a good many years adopted the following simple method, with the most undeviating success.

When upon his arrival, he finds her occupying the recumbent

posture, he expresses a wish to have her removed and placed in a chair. Should the state of incompressibility be only apparent, a most marked difference will suddenly take place; and by exchanging the sitting for the erect position, if considered necessary, the illusion is quickly at an end, or *vice versa*.

The plan here described has become so habitual, and been found of such service, that I seldom have recourse to venesection, under any circumstances, without the state of the circulation being first tested in the preceding manner.

It was originally suggested, on observing, that, in several of the cases mentioned, where the operation was performed in bed, the blood exhibited none of the fibrinous crust called "buffy coat" generally met with, and no corresponding favourable results were obtained; as also on witnessing the effect produced on others removed from beds, where it (V.S.) could not with propriety be accomplished. It may here be remarked, that a loaded state of the bowels appears to be one of the most common, and, at the same time, effectual causes in producing the fictitious state of the pulse alluded to—a circumstance in doubtful or apparently critical cases, which should always be kept in view.

Should the degree of the affection, however, be any wise considerable, its detection is uniformly simple and easy.

When no application has been made, or steps taken for its removal, more especially in those of sanguine temperaments, or in proportion as a tendency to plethora may exist, as has been already observed, it "settles down upon some important part or organ," becoming occasionally diffused over a considerable space.

The linings, and not unfrequently one or other of the organs contained in the thoracic and abdominal cavities, in consequence of their vital and intimate union, are commonly the seat of its more aggravated attacks in preference to the remaining parts of the body.

When it takes place, however, in a slower and less acute degree, those included under the head of the second resisting cause, seem more peculiarly predisposed to participate in the "*diffusive*" nature of the malady.

Diagnosis.—It can only, the writer is of opinion, be confounded with affections of a similar kind, which may have been rooted in the system previous to conception, or, as is known occasionally to happen, nearly coeval with that event.

The importance of this diagnosis chiefly consists in supplying the attendant, upon any suspected case, with an additional motive for watchfulness over the state of his patient during the early period of pregnancy, when he is aware of such being fully established, lest abortion, or it may chance, premature labour come to pass, and thus prove the means of frustrating fondly cherished expectations and desires, which may not again be realized.

2*d*, State of excitement of os uteri and external parts.

It might *a priori* be suspected, that in consequence of their close relationship with the very wonderful and no less mysterious phenomena displayed in the respective processes of the propagation, germination, and development of the foetus, viewed in connection with their high vascularity of texture and depending situation, the parts in question would be amongst the first involved in the state of phlogosis or inflammatory action described—a fact there can be no hesitation in affirming, to which daily experience in the practice of those conversant with the anatomy and healthy function of these very important organs, can bear ample testimony.

Symptoms.—As the result of observation in a considerable number of cases, the writer believes the characteristic marks of this very frequent and formidable complaint, upon the investigation of which he is now about to enter, so prominent and conclusive, as to warrant its arrangement under two general heads or divisions—1*st*, That wherein it arises in consequence of a previous excited state of the system or circulation; and, 2*d*, Where its existence seems more peculiarly to depend on the advanced period of life at which females occasionally become pregnant for the first time—allowance of course being made for the reciprocal intermixture which must now and then subsist betwixt them.

Disavowing, as he does, the smallest desire whatever to censure or condemn the use of terms which have received the sanction of the wise and great, who have preceded him in the field of obstetric inquiry, provided they lead to no manner of confusion in practice, the writer imagines, that in the present instance, should he be in any measure successful in his illustrations of the positions advanced, a change is so far necessary from that hitherto employed, so as to coincide with the *data* on which the same are founded.

Relating to the first of these, he considers the substitution of the title “*excitement*,” for that of rigidity, as much more appropriate, and expressive of its real nature; while “*rigidity*,” on the other hand, seems better adapted to convey more correct ideas regarding the second—which has been uniformly found to be exempt in a much greater ratio from the state of phlogosis attendant on those whose acquaintance with puerperal circumstances has been earlier formed.

The appellation “natural toughness,” bestowed upon it by Dr Hamilton, would seem to apply with more systematic precision under the latter than the former head. In no other manner can the distressing, but by no means exaggerated description of the symptoms which stamps the first stage of this affection, as exhibited by him at p. 131, receive a satisfactory explanation.

The term “natural,” without being subjected to a constrained definition, could, it is conjectured, but very inaptly apply to

such a history as the following:—"When the first stage is retarded by the natural toughness of the os uteri, the sufferings of the patient are always more or less distressing. There is a feeling of wretchedness which is not relieved during the intervals of the pains; sickness at stomach, with excessive retchings, are the usual symptoms; restlessness and despondency are the natural consequences;" conditions which evidently imply that a morbid process has been longer or shorter going on. When viewed, however, in relation to the second, the discordance is easily reconciled.

In passing under review the various opinions advanced by the numerous list of writers in the preceding paper, respecting this affection, it will be remarked, that, whilst described by the majority as of a very formidable and untractable character, by none have the difficulties which stand in our way, in order to a correct understanding of its nature and treatment, been rendered so appalling, and magnified to such extent, as by Drs Ramsbotham and Blundell.

In further prosecuting the illustration of this subject, that plan has been adopted, by means of which, the circumstances which shall be pointed out, and the observations arising therefrom, are intended to be such as it is imagined would be met with on our attendance on a case where the affection is supposed to exist in a *medium* state—the patient's health and strength, to a certain extent, impaired on account of previous indisposition; and where interference of every kind has been withheld as useless or improper.

Upon the practitioner's being called on to attend such a case, when as yet no regular uterine action is established; more especially, if he has not been on terms of previous acquaintance with his patient, and she about to be confined for the first time, such a state may be expected to exist when occasional, or perhaps pretty frequent attacks of pain are experienced, the force of which is in a great measure exhausted, without diverging to any considerable distance from the spot whence they originally sprung up, which may chance to be either across the superior portion of the sacrum, the loins, or somewhere in front of the uterine region. And his suspicions will receive, in all probability, additional confirmation, when, upon inquiry, he is given to understand, that the object of his present solicitude has passed a good many sleepless and wearisome nights, in consequence of the unremitting and baneful influence exercised over her perhaps otherwise delicate and susceptible frame, by reason of these distressing, although spurious pains. Symptoms of constitutional disturbance, as formerly taken notice of, will likewise manifest themselves in a greater or less degree; and, provided the patient be able to give any thing like a correct delineation of her situation, it will almost invariably

be found that most of these have for some length of time preceded the occurrence of the nocturnal pains.

The exceptions to this rule have been met with chiefly in those cases where injury has been inflicted upon the aperture itself and parts adjacent, either by means of neglected, or imperfectly treated acute disease previous to conception, or the improper use of instruments in former labours; states, which attention and intelligence on the part of the practitioner alone can serve properly to discriminate.

I likewise feel called upon to declare, that an excited and thickened state of the os uteri may occasionally be expected to be met with, where none of these circumstances have occurred, and where there has been well nigh an exemption from the pains in question. The subjects to whom these remarks apply have been found to consist principally of primiparæ of good natural constitution, in whom the extension of the morbid influence to the parts under notice had been of very limited duration. This may be looked upon as the first gradation of the complaint; whilst a continuance of pains of the nature described, whether occurring in primary pregnancies, or amongst those females who have passed through the ordeal of childbirth once, and perchance again, at the full period of gestation, seldom fails to aggravate its severity.

Several distressing cases of this affection have been met with, where, in the preceding, generally primary labour, the head of the child, from incomplete descent into the pelvis, by reason of maltreatment at the commencement, required to be lessened in bulk, and drawn forwards by means of the crotchet; and where, consequently, the os uteri had never been fully dilated.

It is to be understood, that, in this statement, no case is included where deficiency of space, however small, had existed.

To resume, more closely, the subject;—the patient being placed in bed, and the necessity for an examination into the state of matters being explained and acquiesced in, the attendant is satisfied that labour has commenced: for the sake of quicker illustration, let the os internum be capable of being reached, and that upon the accession of a pain or two it feels open; and, as Dr Hamilton at p. 120, most correctly expresses the condition, a “decided tightening of its edges is found to have taken place.” Even at this early period, if careful in his observations, he can scarcely fail to discover the thickened, inelastic, irritable, and perhaps serrated, or unequal extremity of the organ.

A good many hours of acute suffering may possibly in this way elapse, before it can be fully discovered that the presentation is in the natural order; the pains either not going completely off, or recurring at very irregular intervals. The pulse retains its incompressible feel, whilst an acceleration in its motion has evidently taken place.

The degree of restlessness and agitation manifested by the pa-

tient, clearly shows that the state described by Dr H. is not far distant. She perhaps expresses a desire for, and would fondly compose herself for a short time to rest, but cannot, on account of the lancinating nature of the pains which are gradually advancing, both in frequency and strength.

When an examination is instituted, she shrinks from and complains of the introduction of the finger, unless accomplished with the utmost gentleness and caution.

The state of the parts formerly described, can now be more satisfactorily ascertained; whilst an opportunity is afforded of observing the slight enlargement of the orifice, compared with the number and severity of the pains.

The poor patient is, however, likely doomed to undergo a still farther increase of her sufferings in consequence of the violence of these *labour* pains, as they have been very appropriately styled, becoming greatly augmented, whilst their efficiency is exerted in the same disproportionate ratio as before. Making the supposition, that the labour has continued from ten to twelve hours, the head having only completed half its descent into the pelvis, it must appear evident that her situation has already become somewhat critical. Should her constitution be originally good, and general health but slightly impaired, she may, provided rupture of the uterus do not supervene, at the expiry of about thirty hours, or even upwards, of well-nigh continued distress, give birth to her offspring without artificial assistance being required; and in the space of from two to three weeks will be able to leave her bed, and possibly her chamber, for several hours during the day. Her future recovery, provided no inflammatory disease ensues, may be tolerable, in consequence of her long confinement to bed, but must of necessity depend a good deal as to whether she is subjected to the task of nursing or not. It will be found, however, that her constitution is much more delicate than formerly, not so much from the severity of the labour as the previous state of excitement, by means of which it has, in a certain degree, become undermined, and she is easily fatigued, complains of pain and weakness in her back, has a leucorrhœal discharge; and should an examination in course be permitted *per vaginam*, the *os uteri* will be found to be extremely tender to the touch, whilst a probability exists that it may to a certain extent have become prolapsed.

Should the labour be much longer protracted, or her constitution prove of the delicate or susceptible kind, her chance of delivery by the unaided efforts of nature is extremely small. In both cases, the safety of the child will depend much on the strength of the pains and the length of time required to complete the second stage.

A third, and, in many cases, more likely termination is, that the powers of the uterus, and likewise of the system generally,

should the action have proved violent in the early part of the process, will be so far reduced before the first stage is over, when the application of forceps of any description, in ordinary hands at least, becomes quite impracticable, in which case no choice is left but to finish the delivery by the operation of embryulcia, or allow both mother and child to descend unseparated to the grave.

Diagnosis.—In addition to the diagnostic symptoms of this affection, stated at the commencement, it may here be necessary to observe that its actual existence, in most instances, can only be fully determined by examination. In the institution of this, however, it deserves to be borne in mind, that it is not a thickened, unyielding state of the part so much, that constitutes a case of genuine excitement, as the degree of tenderness or pain, heat, &c. which is experienced upon the application of the finger. The absence or presence of the circumstances here noted will mark the gradation both towards that of general excitement, and where it arises consequent upon an advanced period of life.

Should venesection have been properly performed, at least a fortnight previous to confinement, it will turn the scale considerably in favour of a less irritable condition of the parts.

It has likewise to be distinguished from a state of œdema, which, from obvious reasons, is often an attendant upon the pregnant state. When it occurs in its more simple form, it can seldom fail to be readily understood on account of the soft elastic impression which the part conveys to the touch; the want of tenderness, and the readiness with which it gives way to the operation of genuine uterine action.

The remarks hitherto submitted to consideration will be found chiefly to refer to the state of the os uteri, and consequently applicable only to the difficulties to be encountered during the first stage. It is, nevertheless, a fact, established beyond the possibility of dispute, that those connected with the second are frequently the seat of a degree of excitement such as to occasion much delay and anguish to the patient, and trouble to the attendant; and whilst, provided he be careful and sufficiently minute in his observations, he may expect from time to time to meet with cases where the line of separation can be readily drawn; he will, in others, have to contend with it in every varied degree from the commencement to the termination of the labour. When, therefore, its existence is fully proved in the first case, our suspicions should be roused in the expectation of meeting with it in the second.

Another circumstance, the writer considers of importance to be attended to, is the fact, that the condition of the pulse, on the approach of labour, is no sure index as to the degree in which this morbid state may afterwards be found, in consequence, that when the system has been fully placed under its sway, it gradually, provided no counteracting measures be employed, loses both in tone

and energy—the general force of the circulation participating in equal proportion. Not a few instances, at least, have been witnessed, in which, from the comparatively low, though wiry state of the pulse, no particular difficulty in the outset was feared, but where the complaint in question prevailed in a very aggravated form, and could be accounted for upon no other principle or mode of reasoning. More direct evidences can, in the majority of these cases, be obtained from the violence and duration of the nocturnal pains and other circumstances.

The result of the experience acquired by the writer, enables him to affirm, that many cases of difficulty have been, and it is feared, are still occasionally mistaken for, and stigmatized under, the hackneyed appellation “of rigidity,” wherein the whole interruption to the regular progress of the labour seemed to depend upon a moderately excited state of the sanguiferous system, and consequently requiring only the abstraction of a limited quantity of that fluid for their relief.

In instances of the kind now described, where uterine action has been some length of time established, and the dilatation advanced a certain way without the aid of venesection being called in, it then becomes, he is well aware, a very difficult question to determine exactly their real nature prior to the accession of labour, as the parts under consideration, otherwise perhaps exempted, soon become excited, partaking, as they must of necessity do, in the state of engorgement, in common with all the other parts of the system.

For the purpose of rendering the diagnosis between the primary and secondary forms of the affection as intelligible as possible, the following general rule, where the attendant may not have enjoyed an opportunity of making himself intimately acquainted with his patient's situation previous to the commencement of labour, respecting the comparative degrees of resisting power which they severally exercise over its more usual and regular course, will be found worthy of particular confidence—allowance being granted for diversity of constitution with regard to delicacy and very considerable prostration of strength, the size of the infant's head, which shall be more particularly taken notice of hereafter, and any other casual circumstance.

In cases where the degree of excitement is moderate and of limited duration, the pains are found for the most part to return at pretty regular intervals, and the dilatation advances for a certain length of time progressively, although somewhat slowly—by the time, or perhaps before the first stage is fully completed, unless prompt counteracting measures have been adopted, uterine action, and, consequently, the process of dilatation fail together.

A very opposite effect, however, is witnessed when the system is more freely surcharged with blood. Notwithstanding the action is frequently well-directed and powerful, no corresponding

impression is made on the os uteri ; but as soon as the encumbering weight is relieved by the judicious employment of the lancet, the aperture is found much more speedily to yield than in any case where disorganization of its structure has to a greater or less extent beforehand taken place.

Instead of the active appearance exhibited by the uterus now described, it occasionally happens that a sluggish or inert condition of the organ is met with, which the same appropriate treatment, applicable in the other case, when timely resorted to, never fails to rouse to action—a state very correctly and fully detailed by Drs Burns and Rigby.

In concluding the imperfect sketch here presented, it remains to be told that the opinions it advocates have been the result of long and studious observation, in a good many cases where the symptoms were such as to exhibit the affection, whose nature it is intended to display under all the varied forms and degrees which have now, and shall afterwards be recorded—the inductive inferences being drawn from a pretty close consideration and comparison of their effects, as witnessed from the apparent period of its germination, to that state where the healthy function of the organs more immediately concerned in the parturient process, seemed so deeply imbued with its influence, as to be altogether unfit for action.

3d, Undeveloped state of cervix uteri.

In consequence of its proximity of situation, and also, as is believed, its similarity of nature to the preceding affection, it was originally intended to have included, under the same head, the consideration of the one above specified.

Finding, however, that its importance has been deemed such as to be made the subject of very particular remark, by certain whose names deservedly stand conspicuous, both for acuteness and accuracy of discrimination, a separate place for investigation has here been assigned it.

The writers who more particularly take notice of this affection are Drs Gooch, Campbell, and Hamilton.

“ The cervical portion of the uterus,” says Dr G., p. 185, “ is sometimes thick, hard, gristly, hot, and painful, as if in a state of sub-acute inflammation ; here the dilatation proceeds very slowly, and the os uteri, to the touch, instead of conveying the sensation of an orifice in a piece of broadcloth, feels like an orifice in an inch deal board.”

Dr Campbell, at p. 190, as formerly stated, merely mentions its occasional existence, and describes it as possessing an appearance similar to what it does about the eighth month of pregnancy, and concludes, by intimating that, for its removal, “ V.S., approaching to syncope, is useful, which, conjoined with patience, are,” says he, “ all that are required.”

The description given by Dr Hamilton is as follows :—

“ The edges of the os uteri swell during the pain, as if distended with air, becoming relaxed when the pain ceases, and, notwithstanding strong labour throes, neither the membranes nor the infant are brought in contact with them. If, during the intervals of the pains, the finger be carried up within the os uteri, the stricture of the cervix will be distinctly perceived.”

Although somewhat general, and without reference to the previous condition of the patient's health, or state of the circulation, &c., there is to be met with, at p. 386, of the work of Dr Burns, a lengthened detail of the various morbid affections of the os and cervix uteri, along with the important influences they severally exercise over the natural phenomena of child-birth, the study of which, it is conceived, will become subservient to the improvement of all who feel desirous to advance in the path of correct obstetric knowledge.

Upon a consideration of the preceding statements, the affection in question bears, it will be seen, integral evidence of greater power of resistance than what the majority of accoucheurs have perhaps been led to expect.

An entry upon its investigation cannot be better effected than by endeavouring to obtain satisfactory answers to the following queries, *1st*, As to whether its existence is derived from the same source as the preceding, formerly described? and *2d*, If such be the case, provided a concurrence of similar circumstances should be met with, would they retard the progress of dilatation in an equal degree?

The only author whose opinion seems anywise decisive as to the first of these questions, is Dr Gooch, (see extract already quoted).

Whilst Drs Hamilton and Campbell maintain a perfect silence as to its nature, and the causes by which it is brought to pass, a good deal, it is supposed, can be collected from the statements they have severally recorded, more especially Dr H., respecting the difficulties to be encountered, and consequently the degree of distress to be undergone before its removal shall be finally effected. “ Resistance,” says Dr H., “ to the dilatation, in consequence of an undeveloped band of the cervix uteri, is happily of rare occurrence; for if not understood, it is productive of a degree of distress which can hardly be described. The author has been called into cases where patients have been suffering from this cause for above thirty hours, and where the symptoms were truly alarming.”

The inferences deducible from the language of Dr C., are altogether of the indirect kind. At p. 171, he intimates, “ that in the cerv. uteri the muscular fibres are indistinct, and consequently less powerful than in the upper parts of the organ.” Confirmed, as this statement will be found to be, by correct anatomical demonstration, are we not entitled to argue in a similar manner betwixt the comparative degrees of resisting power possessed by the cervix

uteri, and its more susceptible vascular and nervous orifice? It must, however, be borne in mind that so long as all the parts act in harmony together, this diversity does not exhibit itself, neither, it is evident, will it be discovered in those cases where the orifice only is the seat of the malady. The real estimate of resisting power to the free operation of uterine action can only, it is presumed, be satisfactorily ascertained when the stricture is in the cervix, compared with where the parts included under the foregoing head, more particularly the aperture itself, are affected.

Having been led to reflect closely on the nature, &c., of this complaint, only within a very recent period, it is with diffidence I venture to advance any decided opinion on a subject demanding great nicety of distinction, both in a physiological and pathological point of view; whilst it is, at the same time, replete with considerations of the utmost importance to the safety of the parturient female.

From a comparison, however, of certain cases hereafter to be described, my present belief is, that, as the consequence of an equal degree of irritative action, or perchance of that description to which the epithet rigidity is more correctly applicable, affecting the os and cervix uteri, the latter will prove more distressing and tardy in its development under a similarity of circumstances and treatment than the former.

A number of particulars connected not only with the history of the cases above adverted to, but likewise of several others, of which a statement cannot, in the meantime be correctly furnished; and reasoning *a priori* upon the proximity of the seat of the affection to that of the extreme point of the organ, have served to impress me with the conviction that its occurrence is not so rare as Dr Hamilton's account would lead us to suppose.

Waving, as unprofitable, all controversy respecting these topics, the attention of those whose spheres of practice afford favourable opportunities, is urgently requested towards the investigation of this formidable affection, of which our knowledge is as yet very imperfect.

Diagnosis.—The diagnostic, as well as the characteristic symptoms of this morbid state, are so fully and distinctly embodied in the combined extracts of Drs Gooch and Hamilton, quoted at the commencement of this article, as in a great measure to supersede the necessity for any additional remarks.

The only two affections with which it seems liable to be confounded, are a state of organic disease of the part and that of the orifice already so frequently referred to.

The former, should it have been of considerable standing, will, it is believed, be capable of being distinguished with little difficulty; whereas, by minutely contrasting it with the latter affection, in which the orifice, though irritable, and enlarged in volume, as well as indisposed speedily to yield, is uniformly in contact

with the membranes or foetal head, we shall the more readily comprehend the projecting, everted, and corrugated or purse-like appearances, exhibited in that under consideration. In the event, however, of a combination of the affections, it is easy to understand, that we shall witness all the symptoms descriptive of the present, in connection with a similar state of the os uteri, and perhaps also the parts more externally situated.

In all the cases met with where the symptoms of this complaint were anywise prominently marked upon the accession of labour, it was found, upon inquiry, that the patient had, in nearly a corresponding ratio with its duration and intensity, been the subject of the usual constitutional symptoms enumerated under the two former heads, thus evidencing the fact that it originates from the same source, and differs in nothing from the former, save with respect to locality.

4th, State of irregular action of the uterus.

The fourth resisting cause enumerated, (*viz.*) a state of spasm or partial action of the body or fundus of the uterus, appears to be principally taken notice of by Drs Burns and Rigby. At p. 454, its character and symptoms are thus described by the former. After stating it to be one of more frequent occurrence than many suppose, that it usually affects the circular fibre of the cervix, and also a detail of the causes from which it may generally be expected to arise, he proceeds:—"It is marked by pain coming or increasing at intervals, like proper pains, but it has little effect on the os uteri, or forcing down the child; nay, the os uteri sometimes seems even to contract during a pain; if there be any bearing down, the pressure is only momentary. The pain does not entirely go off as in natural labour, but the patient complains of constant uneasiness in the back or some part of the belly, but usually the former. The paroxysm of pain is generally described by the patient as affecting some part of the belly, particularly the lower part, corresponding to the cervix uteri," &c.

Dr Rigby designates it stricture of the uterus; and his account is as follows:—"We have," says he, "already had occasion, more than once, to allude to that species of violent and continued contraction, which we have denominated stricture of the uterus, but have chiefly considered it where it affects the os uteri; a somewhat similar condition of spastic rigidity is occasionally, though rarely, seen in the other parts of this organ, and is capable of producing a most serious obstacle to delivery. The uniform and regular action of the uterus disappears; its contractions become partial both in extent and effect—one part alone contracts, whilst the rest of the uterus is relaxed; its shape thus becomes altered; for, by these partial contractions of its fibres, it may become elongated, shortened, flattened, &c.; the spasmodic action frequently varies its seat, and successively attacks different portions; thus, where it affects the body of the uterus, it becomes contracted al-

most like an hour glass, having a transverse circular indentation, as if it had been tied with a cord." After a still more lengthened detail of symptoms and circumstances relating to this complaint, he goes on to state,—“ In cases of this kind we find, that although the uterus contracts, the child does not advance, but rather retracts during a pain—the contractions are never general, but partial, and even where they are general, the fundus does not attain its due preponderance over the os uteri; so that the one contracts as much as the other does; in severe cases also, the uterus continues in a state of spasmodic action during the intervals of the pains,” &c., p. 212.

In the absence of evidence which would enable me to substantiate wholly the more prominent symptoms here transcribed from the work of Dr R., such as that of hour-glass contraction, &c., the result of cases met with from time to time, have afforded me convincing proofs of its being a complaint of no trifling importance.

From observing, that in the majority of these cases, the os uteri, as also the parts forming the outlet, laboured (at least as I then supposed) under a considerable degree of excitement; and that it was seldom witnessed in others, of suspected difficulty from similar causes, in which a regular organized plan of treatment was adopted with the commencement of parturition, I have been led, as it were, step by step, to embrace the opinion, that it is not only a secondary, but in many instances, an affection of a tertiary nature, springing out of one or other of those included under the foregoing divisions. In hazarding this statement, I feel happy in being supported by such an able authority as Dr Burns, who, it will be observed, seems to consider it as having a connection with a morbid state of the cervix.

In none of the cases which I have witnessed, could I suppose it depended upon a spasmodic state of the neck or orifice of the womb, but as being itself wholly of that nature, it may by some be considered, if not a primary affection, capable only of being produced in consequence of an intimate alliance with parts similarly circumstanced. This, it would seem clear, is a position utterly untenable, seeing that resistance to the healthy operation of any of the natural functions whatever seldom, if ever fails, to throw their respective organs, or those muscles in most immediate contact with them, into a state of spasm—instance the bladder and kidneys, &c., the effect of calculi in the urethra and ureters, and also colic affecting the bowels by reason of the application of cold to the lower extremities or surface of the body, &c.

A possibility, however, exists, that it may occasionally arise in consequence of a degree of excitement, or perhaps the contrary, a state of torpor, affecting the uterus itself, of which notice shall be taken by and by at greater length.

Diagnosis.—A careful consideration of the symptoms, as noted

by Drs B. and R., can scarcely fail to render its detection easy, whenever it appears. Could I consider myself at liberty to draw conclusive inferences from a few examples, I should state its occurrence as being most common in those cases where resistance to free uterine action, in a greater or less degree, prevailed, but in which the pains are of a trivial, variable character. In this way, when opposed by a resisting power, upon which they are unable to make any impression, their course is determined in the opposite, or that direction which yields with greatest readiness on their approach, without being scarcely exerted on the uterine aperture at all. Much, however, it must be evident, will depend on the degree and nature of the resistance—the original state of the patient's constitution and health previous to confinement, &c.

Its existence, like all the others, can only be actually ascertained by careful and cautious examination during a few successive pains; and the young practitioner's inquiries will be greatly facilitated whilst he is subjecting his patient to this examination, by placing his other hand gently upon the abdomen, when any of the phenomena spoken of in the preceding extracts will be readily discovered. In the event of his suspicions being fully confirmed, provided he has not done so already, he should carefully scrutinize into the varied states of the uterus previously treated of.

5th, Premature rupture of the membranes of the ovum.

The circumstance of the membranous sac becoming prematurely ruptured, has been described by the majority of practical writers as an incident, by means of which the progress of labour is usually attended with considerably greater difficulty and delay than otherwise; and for the most part classed with those resisting causes lately passed under review, as requiring for their speedier and more effectual removal the evacuation of blood.

It is found to be more prominently taken notice of in the works of Drs Hamilton and Burns.

Dr Campbell, likewise, at pp. 189, 190, makes mention of it in connection with a protruded state of the uterus into the pelvis, (which, having never been met with, will be passed over in silence,) and appears to regard venesection as the *panacea* against those untoward effects to which the presence of two such formidable occurrences have been supposed capable of giving rise.

Having been led, at the period of my entrance upon the practice of midwifery, chiefly from the reported magnitude of the difficulties attendant upon such an occurrence, as described in books, to offer it in the cases met with, no cordial welcome, and, at the same time, to watch over it with a jealous eye; I may, perhaps, be considered as guilty of exaggeration, when I state that the number of these in which the very unfavourable opinions imbibed have, at the moment of writing this, been fully verified, if any, are extremely few. I request it, however, to be particularly understood, that none of a difficult description, in which imprudent

delay or mal-application in the use of remedies bore any part, are included in this statement. Making all due allowance in every instance where it unfortunately does take place, for the loss of an auxiliary so important in preparing the way for the more free dilatation of the parts concerned in the expulsion of the foetus, as the smooth, elastic, and conically-shaped membranes of the ovum in their distended state, the result of minute and close attention in the whole of the cases witnessed, warrants me to believe that, when in every respect complete, the power possessed by them of counteracting the effect of other resisting causes, is extremely small; and that venesection, in every instance, is to be had recourse to, in so far as may be deemed requisite towards liberating the system and sexual organs, from the state of phlogosis described, as if no such additional cause existed.

The preceding assertion, it is supposed, receives confirmation in no inconsiderable degree, from a circumstance which, as far as my reading extends, has not as yet been made the subject of observation. Allusion is here given to the fact that cases are almost of daily occurrence in which the liquor amnii is extremely limited in quantity, if not altogether wanting, and where, consequently, the effect in accelerating and facilitating the progress of dilatation must be much on a par with those in which early rupture has taken place. Lest, however, it should be supposed that the remarks which have been stated, respecting the effects of this incident, are such as would impress the mind of the young practitioner with the idea of its being one of trivial importance, I beg to say that in every instance where it happens, the utmost vigilance should be exercised in order to discover the correct state of the system, and os uteri, &c., with regard to circumstances, which are here unnecessary to be repeated.

Without venturing to give a decisive testimony as to the real causes of its production in the greater number of examples, the fact of its frequent occurrence in cases of interruption dependant on a more or less unyielding condition of the os or cervix uteri, seems to have given rise to the impression that the sum total of the delay and difficulties was vested in itself, whereas, by careful observation, the reverse will, if I mistake not, with at least equal consistency, appear entitled to a preference in the scale of comparisons. The consequences being uniformly of an untoward than opposite tendency, it becomes the imperative duty of each of us to guard against such an event, by all the judicious means in our power, upon the accession and during the first stage of labour, and when it does so, to investigate minutely the condition of our patient, before having recourse to venesection or any other measures. The necessity for this caution seems the more urgent, seeing there exists the strongest reason to believe that its occurrence amongst individuals labouring under very considerable prostration of strength is not so rare as has perhaps been imagined.

Two well authenticated cases at least will hereafter be adduced, in one of which venesection had evidently an injurious effect.

One circumstance connected with the early discharge of the amniotic fluid, which seems well nigh to have escaped the notice of writers, deserves to be especially remembered, viz., the inconvenience and irritation its constant dribbling away is apt to occasion, by which, should the case prove lingering, the passages are in danger of becoming excoriated, sometimes to such a degree as, in the absence of timely recourse to the ordinary prophylactic means, to render the patient's situation very irksome and unpleasant, when appearances seemed to indicate that otherwise she would have been exempted.

Of the advantages to be derived from the institution of an early examination in every case of premature rupture, lest the presentation should prove such as to demand the operation of turning, it is unnecessary here to stop to inquire.

Diagnosis.—Though, of itself, a comparatively simple and readily detected affection, yet, associated, as it is liable sometimes to be, with another, and also certain states of the os uteri, &c., in which a discrimination is of the utmost consequence, it is conjectured that a few observations respecting the most prominent of these, and the manner in which the diagnosis may most easily be accomplished, will prove, in some degree, interesting and serviceable to the junior class of practitioners.

The first is that of a false collection of serum :—" Sometimes," says Dr Campbell, p. 81, " an effusion of fluid, resembling the liquor amnii, takes place per vaginam, before there is any evidence of uterine action, and has not inaptly been called *false waters*. It may consist of a copious gush or two and then cease, or in a stillicidium of some days' duration. It has been ascribed to rupture of a lymphatic vessel; but more probably it results from irritation and increased secretion from the passages, or laceration of the chorion." When a discharge of any sort is reported to have taken place previous to his arrival, he should make it his invariable rule to inquire diligently into the circumstances of the case. To accomplish this in a dexterous and skilful manner, he has only to carry his finger, properly lubricated, along the canal of the vagina, and provided the dilatation be effected only to a very circumscribed extent, he will not in general experience much difficulty in reaching the os uteri, when, by gently insinuating its apex into the aperture, a little prudent attention and scrutiny during a pain or two, will serve to complete, in most cases, the distinction betwixt the soft elastic impression the membranous sac, should it be only very partially distended, never fails to convey to the touch, compared with the flattened, denser, and more unequal one afforded by the naked scalp. In those cases where the secretion of the liquor amnii has been very sparingly formed, or again absorbed, the diagnosis may not, at first examination, be

accomplished with equal ease, as in the former case, when it becomes necessary to wait with patience, and endeavour to promote the farther development of the orifice.

The young accoucheur has, however, to be warned against another source of error, from which it is believed few can altogether claim exemption, viz., in very severe cases of excitement or rigidity, in which the os uteri is more than usually retracted, and where it consequently happens that its dilatation and access are more tardy and difficult than otherwise, he is inclined to suppose his finger in contact with the membranes or child's head, when only exerting pressure against the parietes of the uterus. Should such a mistake not be timely discovered, its results in many instances, it will be readily understood, must be serious.

Cases, also, are now and then met with where the os uteri has become so extended in volume at the commencement of the labour, as with some difficulty to be distinguished from the distended membranes, with which it is in the closest contact, and, like the former, demanding a certain degree of circumspection on the part of the attendant, in order to a proper discrimination.

In all the several states above described, more especially where discharges are reported to have taken place coeval with parturition, it becomes us always to be cautious in forming and delivering our prognosis, until we shall be able fully to determine the real state of matters by examination. A proper degree of attention, however, on the part of the practitioner, provided he can lay claim to a moderate share of the *tactus eruditus* will uniformly guard him against committing any particular blunder, respecting either this or the diagnosis.

Having expatiated at greater length than was originally intended, on the history of the principal affections incident to the pregnant state, as regards their relationship to the development of genuine uterine action, when the period of labour arrives, and shown the intimate connection which subsists betwixt several of them, and a loaded condition of the vital fluid; it is only necessary towards completing the illustration of the first indication specified, viz., "the circumstances demanding the abstraction of blood," to say, that by means of a proper consideration of these (affections), provided the views entertained respecting the manner of their production be found in accordance with the evidences deduced from strict pathological research, the state of excitement alluded to at the commencement of this paper, can scarcely fail of being discovered to be, with the exceptions which have more lately been adduced, the only one whose consequences are such as in any case to render recourse to venesection indispensable, agreeably to the rules already and hereafter to be pointed out.

Certain other conditions, such as rigidity of the muscular fibre, a tendency to obesity, &c., occasionally spoken of as requiring similar treatment, seem entitled to no respect whatever, apart from

the other symptoms described, including that of wiry or incompressible pulse, as constituting at least the commencement of the state peculiarly termed phlogosis.

Circumstances limiting the extent of Venesection.—With regard to the second topic selected for investigation, viz., the extent to which it is to be carried, &c., it will be found upon reference to the quotations formerly given, that the discrepancy which exists amongst the opinions advanced is such as to involve the subject in much obscurity, on account either of the imperfect manner in which these opinions are expressed, or the apparently defective nature of the *data* on which the inferences are founded.

Upon a farther reference to the case selected from Dr Smellie, we are informed it was one of several days' duration, supposed to arise from a rigid state of the os internum, of such a degree as to cause it to protrude half an inch without the external parts, and in which twelve ounces of blood were abstracted with the happiest results.

The rule prescribed by Dr Denman is, that "the quantity of blood be suited to the degree of fever and constitution of the patient."

Dr Gooch, in the milder description of cases, states the *quantum sufficit* at a "few ounces;" and in those of greater difficulty, limits it to about fourteen.

A tendency to syncope and the condition of the pulse, "on which, before we desist, we are invariably to make an impression," are the standards adopted by Dr Campbell.

In the quotations from Dr Burns, no fixed rule is specified to regulate the conduct of the practitioner in this respect; but from a consideration of the symptoms described, and the impressive manner in which he endeavours to prevent its abuse in cases of exhaustion, and individuals much enfeebled, it is obvious that he comprehends the state of the constitution and strength of the patient.

The number of from sixteen to twenty-four ounces by weight is the quantity sanctioned by the experience of Dr Hamilton, without particular reference to the constitution or state of the sanguiferous system. An impression on the system generally, without allusion to the state of the circulation or any other consideration, is a law declared unchangeable by Dr Ramsbotham. The reduction of the circulation to a proper standard—meaning, it is supposed the abstraction of blood, effectually to subdue the state of excitement or congestion generally, is that enjoined by Dr Rigby; whereas the rule recommended by Dr Blundell is so indefinite, and seems more the suggestion of others, than the results of his own experience, as to afford no sort of information.

Thus, whilst by Dr Smellie, but more especially Drs Gooch and Hamilton, the evacuation of a determined quantity is recommended with very little reference to the state of the circulation or

patient, others, viz., Drs Denman, Burns, and Rigby, with certain modifications, seem anxious only to carry it so far as to restore the equilibrium of the circulation ; whereas a third class, including Drs Campbell, Ramsbotham, and we may also reckon Dr Blundell, appear agreed in judging it necessary that, in particularly difficult cases, a still greater impression should be made on the system.

In the midst of such profusion of crude and conflicting evidence, it is no easy matter to arrive at the truth.

Before proceeding farther in the investigation, a question of great delicacy and importance, in assisting to determine with any sort of accuracy the point at issue, appears here to stare us directly in the face,—Ought venesection to be employed in obstetric practice, with the view simply of affecting the state of the circulation, or proportioned to the degree of resistance to be encountered and persevered in till this be overcome ? In other words, Is it only to be had recourse to for the purpose of relieving an excited or congestive state of the system, and discontinued as soon as the restoration of the pulse to its natural standard indicates the same to be subdued ? Or is the loss of blood called for in cases where considerable resistance is found proceeding from the parts through which the foetus must pass till it thoroughly gives way ? Prior to the satisfactory solution of the queries here proposed, the intelligent and discerning practitioner will easily comprehend that a consideration of several circumstances must be taken into account.

We have, first of all, the originally strong, or robust, or weakly and delicate constitution of the patient, varied, as it must of necessity be, by the degree of excitement and the length of time she has been subjected to its influence. 2dly, As to whether she has given birth to many children, of what description have proved her former labours—if she has been the victim of one or repeated miscarriages, is the subject of phthisical or scrofulous symptoms, or has suffered from any other disease of a debilitating tendency ; and 3dly, Whether the energies of her constitution may not be greatly impaired by a life of severe and protracted toil, or by one of a too sedentary and luxurious, if not intemperate nature, with sundry such like particulars, it may chance either of the depressing or exciting kind.

It must, therefore, from slight reflection on the subject, appear self evident, and carry along with it convincing proofs that blood-letting cannot be admissible in the different descriptions of patients, and under a diversity of circumstances upon equal terms and with the same effects.

Having, as formerly reported, been deceived in my expectation with regard to the effect produced by venesection in certain cases, I was thereby progressively led to attend more minutely to the state of the pulse—the results of which inquiry were such as to

assure me that the presence of the incompressible or wiry condition, tested in the manner already related, was the alone sure indication for recourse to phlebotomy—whilst a conviction of the reality of the above fact served as a stepping-stone to forward the belief that, in proportion to its intensity, in a corresponding measure would the evacuation of blood be employed with advantage,—a line of practice, the accuracy and utility of which, the experience of succeeding years has amply attested.

In every case, therefore, which comes within the range of observation, whether labour be actually commenced or not, laying all other considerations aside, upon a thorough conviction of the presence of excitement or phlogistic action, although in a very circumscribed degree, the invariable practice is to make use of the lancet, till a change in the nature of the pulsations, ascertained by examination of the liberated arm or temporal arteries, demonstrates the same to be, in the meantime at least, fully subdued—uniformly endeavouring, by means of a free and well adjusted incision through the integuments into the vein, that the current of blood be as full and uninterrupted as possible, otherwise the beneficial ends of the operation will likely be entirely frustrated—a circumstance to which attention becomes the more necessary in the case of reduced and delicate individuals, where the loss of a very limited quantity of blood removed, in a contracted and unequal stream, or as it were drop by drop, has no effect in aiding the progress of dilatation, whilst it must tend to augment the debility still farther.

Agreeably to the principle already laid down, viz. that the state of excitement during pregnancy “differs nothing from a similar affection of the system under circumstances entirely the reverse,” instead of the extensive general bleedings recommended by some, no valid objection save motives of delicacy and the unsurmountable difficulties presented by labour can be urged, it is presumed, in cases where the same is communicated to the sexual organs, against the local abstraction of blood by leeches, &c., as in other complaints. That such would, in certain cases, prove serviceable, if properly conducted, previous to labour, there seems every reason to believe.

Should not syncope, or at all events a degree of faintness occur before the reduction of the pulse to the proper standard, it may be supposed that, in the younger and more robust class of females, the lancet may be employed with greater liberty, not only with impunity, but with more extended usefulness than would accrue from a rigid conformity to the rule lately laid down—a concession which experience does not authorise me to grant.

Were the case to prove only one of general excitement, the reduction of the pulse to the extent proposed, will, if timely effected, with few exceptions, serve to render the process of delivery comparatively expeditious and easy; whereas, in those instances in

which it has "settled down upon important organs," particularly the os or cervix uteri, the objections which may be urged against the same limited mode of practice, can be counterbalanced by others equally forcible and decisive.

In all such cases, it must be remembered, that when an organ or part becomes the seat of inflammatory action, even for a brief period, the same, notwithstanding the prompt application of the curative measures, is subjected to a corresponding degree of debility, which, according to circumstances, may remain for a considerable length of time, rendering it an easy prey to a renewed attack, as may be witnessed in the case of ophthalmia, and also of wounds, and injuries inflicted upon the lower extremities, &c., thereby unfitting such for the proper performance of their respective functions; and in proportion to the weight or length of the period the affection may be located, not only will the part or organ suffer a diminution of its powers, but the effects are extended over the system at large, although, unless in instances of previous extreme delicacy or weakness, in an inferior degree, compared with the former.

Should these premises be found correct, it requires but little stretch of intellect to comprehend that there is here not only the state of excitement, but also its effect, viz. that of debility more or less to encounter; which, as formerly related, never fails to add greatly to the difficulties of the case.

Connected with the preceding, is the well established fact in the history of inflammation, that in like measure with its duration and extension, the more acute symptoms, provided its advance be not ushered in with rapidity and violence, gradually lose their prominence, so that a case which would have required in its earlier stage, the abstraction of perhaps from eighteen to twenty-four ounces of blood to allay fully the excited state of the circulation, at the expiry of a few weeks, would apparently, in the view of an inexperienced attendant, be equally subdued by means of from twelve to sixteen.

The results of the experience derived from cases in which a larger quantity had been abstracted than was requisite to relieve the congestive state of the system, have gone to prove that, if the effect were such as to expedite and facilitate delivery, it is in the majority, at the expense of a greater reduction of the patient's strength and energy than what is necessary, or in many instances warrantable, and which could have been more effectually and safely accomplished by other means. The cases related by Dr Dewees, the great advocate for extensive bleedings, more especially the one of over-distension of the uterus and density of the membranes, stated in the 8th edition of his work, p. 378, is believed, in the absence of evidence in support of the contrary, to be of this description.

Instead, however, of labour being shortened or simplified by

means, as it may be termed, of an over-effusion of blood, its progress upon a careful observation and comparison of cases, will be found to be retarded in a degree proportioned to the *stamina* and previous circumstances of the patient in connection with the quantity of the effusion. To understand this the more perfectly, it may be necessary to revert to the fact, that by destroying the *equilibrium* of the system, or any particular part of it, we interfere more or less with the healthy operation of its functions.

In the case before us, it may be objected to the above statement, that frequent instances occur, as Dr Hamilton has observed, “of women in the last stage of phthisis pulmonalis, dropsy, as also of those moribund from continued fever, scarlatina, pneumonia, &c., in which, when labour comes on, the uterine contractions are usually strong.”

To explain this paradox, it needs only to be recollected, that whilst of most of the affections alluded to by Dr H., the nature is such as to effect a state of general relaxation over the system; in the whole of them there is but small risk of determination of blood to the generative organs, but rather through some other channel. The difference is, however, very great when an unyielding state of the os and cervix uteri, or parts forming the outlet is met with in an individual whose system is reduced either by disease or profuse evacuations of blood—a point which it is believed he (Dr H.) has fully cleared up, when at p. 130, he says, “There is a wonderful difference in the facility with which the os uteri opens in different individuals; and the appearance of the patient furnishes no correct indication on this point; for in many strong muscular women the dilatation proceeds easily, while in many relaxed delicate individuals its progress is both tedious and painful,”—expressions which evidently imply, that in the former case the relaxation is complete, whereas in the latter it is quite otherwise. It is to this state of relaxation or balancing of the system and generative organs that we ought uniformly, in framing and adjusting our plans for the management of labour, to have our attention more particularly directed in all the varied descriptions and conditions of patients; and is therefore to be regarded as the grand hinging-point whether they (the patients) be strong or weak. Should a state of faintness or even syncope take place before the reduction of the pulse to the required standard, the object in view will be greatly advanced, if not entirely accomplished, and a considerable saving of blood in some cases be the consequence. In a good many, however, no such effect will be produced, when it becomes the duty of the practitioner to exercise caution, lest he should defeat the ends he is anxious to promote. To manage this adroitly, when his patient is furnished with veins of good diameter, he has only to replace the ligature upon the arm, provided the wound has been at first of proper dimensions, and resume the operation till the circulation has been

sufficiently lowered. The advantages of the plan here recorded have been witnessed with the utmost satisfaction, and seem peculiarly adapted for all cases where the patient is delicate, or the state of the arterial system doubtful.

Instead of fixing a certain number of ounces of blood as the standard by which the practitioner is to be guided, as has been recommended by some, or its positive effects on the system, as suggested by others, the restoration of the circulation to its *medium* or healthy state, by the means and in the manner above introduced to notice, will be found a much more efficacious and salutary mode of procedure as respects his patient, and eventually a saving of time and trouble to the attendant, of which he can previously form but a very inadequate conception. Should any feel desirous to contemplate the effect of venesection performed in a random and fearless manner, they have only to peruse the history of the case related by Dr F. H. Ramsbotham, and quoted at the commencement of this paper.

When the veins at the bend of the arm are diminutive or greatly puckered from the frequent use of the lancet, it would be of essential service to select for the purpose one of the jugulars, could the consent of the patient be obtained.

The appearance and consistence of the blood will be found almost invariably to confirm the truth of the propositions advanced. The fibrinous coat, so indicative of the presence of inflammatory action, in general, has by certain been considered as bearing an alliance so close with uterine gestation, as to be seldom if ever disconnected. The results of observation in a good many cases have served to establish the falsity of this assumption; and that whilst its coincidence is only the effect of the state of excitement already spoken of, the frequency with which it is met, has acted as the cause of the supposition in question. In every case where the phlogistic state prevails, the thickness of the crust, and the degree in which its edges are retracted, will furnish a pretty correct index of its severity and duration; whereas its entire absence, provided venesection has been performed with adroitness, proclaims to us in language which need not be misunderstood, that we have been mistaken in our calculations respecting the necessity of the operation.

The appearance of the crassamentum will likewise assist in enabling us to judge of the degree of stamina or strength of constitution possessed by our patient. The coagulum and "buffy coat" in those of delicate and reduced constitution, is uniformly of looser texture than otherwise.

In chancing to perform venesection in several cases prior to confinement, when general appearances betokened health and vigour, and in which the blood exhibited the character described, it was not without considerable surprise that such a circumstance was beheld. Upon the approach of labour, however, the mystery

was speedily developed—these individuals being discovered to possess such delicacy of constitution as to become very soon exhausted, should not the particular difficulties been removed out of the way; so that by attention to this circumstance, we can occasionally determine pretty correctly the nature of our patient.

In the sketch here furnished, relative to the extent to which venesection ought to be carried, in order to overcome resistance to the regular action of the uterus during parturition—whilst attention has been chiefly directed to the consequences resulting from the evacuation of a more than requisite quantity of blood, silence has almost been maintained respecting those of an opposite description, (*viz.*) the effects dependent either on its entire omission, or very partial and perhaps awkward performance. As with these, however, practitioners in midwifery are believed, taking a general view of the subject, to be better acquainted, it will suffice here to say, that in addition to the hints thrown out, when treating of the nature and influences of excitement, they are such as to impede the progress of labour, and subvert the harmonious state of the system, which is so essential to its natural course in an equal, if not a more extensive degree, than the former.

They are, likewise, independent of the dangers to which they expose the life of the patient during the puerperal state, frequently the source of diseases which baffle the utmost efforts of medicine to subdue.

As future opportunities will not be wanting of reference to these, the perusal of the quotations from the works of Drs Burns, Hamilton, and Rigby, relating to this subject, is recommended as being replete with instruction on several of its most important topics.

3d, The period at which venesection may be had recourse to, in order to derive from it the most eminent services to the parturient female.

In entering upon the investigation of the third consideration proposed, it will, as in the former, be necessary to refer briefly to the opinions advanced by the authorities originally quoted.

Notwithstanding the general directions given (as being applicable to tedious or difficult labour) concerning the case of several days' duration, in which it (*V.S.*) was employed with success, it will be found, upon consulting the one immediately succeeding, and also the history of another at p. 159, col. xiv., intended to point out the phenomena attendant upon labour in its natural form, where it was performed to relieve an excited state of the system, to have been Dr Smellie's uniform practice in all cases in which the operation was indicated, to have recourse to it as early as his attendance upon the patient and other circumstances would permit, although no express statement be made.

An attentive survey of the chapter, of which the extract selected from the work of Dr Denman forms a part, will clearly show his

opinions on this point to have coincided pretty closely with those of Dr Smellie.

From a comparison of pp. 180 and 185, it will be observed that the opinion of Dr Gooch on this subject differed widely from the preceding writers, and that the aid of venesection was only considered necessary by him when other remedies had exerted their influence in vain.

The manner in which Dr Campbell has expressed himself regarding this question is such as to render it difficult to comprehend his true meaning. "In such cases," says he, "the sufferings of the patients may be protracted from ten to sixteen hours before the first stage has made any considerable progress. The most marked benefit will be derived from venesection, carried the length of causing a tendency to syncope." It being a duty incumbent upon every author to render his opinions and injunctions as intelligible as possible, it would have been desirable if Dr C. had stated more explicitly whether, when the symptoms are such as to lead us to suspect a difficult case of labour, and where, at the same time, the use of the lancet seems fully indicated, we are to await the expiry of from ten to sixteen hours as the most proper period for its employment; or to understand him as referring solely to those cases in which the practitioner's presence has only been requested when the symptoms of delay and difficulty began to manifest themselves, and consequently where he will seldom enjoy an earlier opportunity.

Although rather indefinitely expressed, the concluding part of the paragraph, selected from Dr Burns, p. 459, leaves little room to doubt but what he has uniformly inculcated the propriety of early blood-letting, whenever the symptoms are considered such as to demand it.

Notwithstanding the decisive manner in which the attention of the profession is directed to the effects of irregular distributions of blood upon the uterus, &c., by Professor Hamilton, from a comparison, however, of the preceding extract, in which a delay of from six to eight hours of strong uterine efforts is enjoined, as well as from the detail of a case, at p. 233, where wellnigh inefficient action was allowed to continue for the space of ten hours before having recourse to venesection, a shade of doubt seems to arise as to whether the early performance of the operation was the practice uniformly adopted and recommended in the more common description of cases or not.

The inferences deducible from the language of Dr Ramsbotham appear to support the opinion that, like Dr Gooch, he only has recourse to it (V.S.) in the event of the failure of other means; whereas the opinions of Drs Rigby and Blundell are so clearly expressed, as fully to justify their claim as advocates for early venesection. Thus, whilst by Drs Smellie and Denman, but more especially Drs Burns, Rigby, and Blundell, its performance is

sanctioned and authorised at the commencement, if not prior to labour, by Drs Gooch and Ramsbotham an opposite practice seems to be countenanced and enforced—the opinions entertained by Drs Hamilton and Campbell being expressed so as to render their interpretation somewhat obscure.

As under the preceding heads certain questions here present themselves for our consideration,—will the progress of labour be found uniformly to advance in those cases in which venesection is strictly enjoined, in proportion to the period at which the operation is performed? In more expressive terms, can its salutary effects be calculated upon with the same certainty, or will they be exerted in equal measure, according as it may have been performed at the commencement, the conclusion of the first, or during the second stage of the delivery?

If, in directing our attention to the constitution of the human body, regarding its transition from a state of health and vigour to one of functional derangement and disease, the principle shall be found fully established, that, in a ratio with the degree of injury inflicted, but more particularly to the active or dilatory employment of the counteracting measures, so will the difficulty attendant upon its removal become, and the effect upon the system or particular organ be felt. If such be admitted as a law of universal application in the history of the animal economy, connected with disease generally, can it be supposed that a state of pregnancy, during which so important changes are wrought in the female structure, will be exempted in a less degree?

Without even adverting to the position here brought under notice, it might, by a little reflection, be expected that the benefits accruing from depletion of the arterial system, would vary materially in proportion as the same may be carried into effect at the beginning or subsequent periods of the labour. On the grounds, however, above stated, there seems the fullest assurance for maintaining that the early employment of the lancet, when the necessity for it has once become satisfactorily determined, is established on the most solid basis.

In recommending attention to the above line of practice, no pretensions to novelty are claimed; as, independent of its being that advocated by the best modern British writers, it was the same inculcated when a pupil, and exemplified in the first case I was then called upon to witness, in such a manner as has not yet been forgotten. Under whatever circumstances venesection may be considered necessary, no valid objection can, it is presumed, be urged against its early performance. Admitting the truth of these premises, the question will naturally suggest itself, to what extent, or, for how long a space of time can the said state of phlogistic action be allowed to remain unremedied without risk of interruption to the progress of labour, or the infliction of injury on perhaps

mother and child ? It is one of the utmost importance, and demands very close consideration.

The results of experience on this subject are to the effect that, as long as the powers of the uterus are but slightly exerted, and where its orifice, if accessible, has undergone but small change from its original occlude state ; so long as matters continue in this way, and tranquillity prevails throughout the system, there is little to fear from delay in the abstraction of blood. As soon, however, as an alteration is discovered in the situation of the patient on account of the uterus making pretty frequent and severe, though ineffectual attempts to execute its peculiar function, every additional moment's dalliance serves only to increase the amount of suffering, and procrastinate the period of the delivery,—thus evidencing the state of engorgement and restrained action of the generative organs, so accurately described by Drs Burns, Hamilton, and Rigby.

The lengthening out of the parturient process, and consequently the augmentation of the patient's sufferings, are not, however, the only evils to be encountered from such a procedure, the salutary tendencies of the operation are in every instance liable to become, not only more or less impaired, but in not a few to be wholly overcome. The explanation of this is to be found in the fact, that a congestive condition of the arterial system, when unrelieved upon the accession of labour, is invariably roused to active operation with the increase and frequency of the uterine efforts—as the undeviating consequence of which, a degree of irritative fever is gendered ; which, from causes too apparent to require demonstration, never fails speedily to induce a state of disorganization and debility, both of a general and local kind, which venesection or any other means possess not the power again fully to remove.

Lest it should be imagined that the evacuation of blood is considered as useless or improper, unless had recourse to at the commencement of labour, it requires to be clearly explained, that no such opinion is entertained—what is wished particularly to be understood, is the circumstance that the benefits arising from it can only be calculated upon with any degree of certainty when performed during the first stage : the earlier so much the greater will the chance of success become.

Notwithstanding, its salutary effects have been found for the most part to be greatly lessened, if not altogether destroyed, when had recourse to after the patient has lingered a considerable time, or the dilatation been pretty far advanced, instances have now and then been met with, under the superintendence of midwives, where an opposite effect has been witnessed.

The most distinctly marked of these have occurred in females of good constitution, wherein the degree of excitement was moderate—as evidenced by the readiness with which the pulse gave

way under the use of the lancet, and the slightly crusted state of the blood; but which (degree of excitement) was sufficient greatly to limit both the strength and frequency of uterine action, and consequently to prevent exhaustion from taking place. The three leading circumstances, therefore, in every case of difficulty, demanding the primary attention of the practitioner, provided he has not been in attendance from the commencement, are the strength or delicacy of the patient, the degree of excitement present, and the violence and frequency of the expulsive efforts.

In opposition to what has been above advanced, it may be argued, that many well authenticated cases are on record in which the action of the uterus has been both violent and long continued, and yet where by recourse to venesection, the resistance was happily overcome, and the labours terminated by the natural efforts.

Of this description may be reckoned the case of several days' duration, &c. originally quoted, and more lately referred to from Dr Smellie, in which the resisting cause was supposed to reside in a *rigid* state of the os internum. Upon more close investigation, however, it can easily be perceived that, like those lately under notice, it was at the outset, one of the very simplest kind, (*viz.*) where the system at large participated equally in the phlogistic state. It cannot well be conceived how a case of such protraction and severity, as to occasion the protrusion of the uterus half an inch, without the external parts, should experience such immediate relief from the abstraction of twelve ounces of blood, had rigidity or excitement to any considerable extent existed in the os or cervix.

Even as circumstances were placed, is there not the most abundant reason for believing that no such favourable termination would have been witnessed, had not the patient been "of a strong healthy constitution." Had the venesection been performed at the commencement, the opinion formed respecting it, (*viz.*) that hours would have required to have been substituted instead of days, is considered by no means extravagant or astray from the truth.

A view in several respects similar is entertained of two cases of agglutination of the uterine aperture, occurring likewise in primæ paræ, related by Dr Campbell, p. 217, in the former of which, twelve hours elapsed before the os uteri could be distinguished, and in the second two nights and a day, during which "she had regular pains, and suffered so severely as to require three persons to keep her in bed. Both were largely bled, gave birth to living children, and had a good recovery."

In the absence of a more extended detail of circumstances respecting these individuals, which is much to be regretted—the most obvious conclusions are, that they were females of sound and vigorous constitution, which enabled them, more especially

the latter, to bear up under the oppressive weight of suffering to which she was subjected—that the degree of excitement was much greater than in Dr Smellie's case; and although in both (Dr C's) the determination to the os uteri was considerable, the effects were only such as to occasion union of its edges without impairing materially the vitality of the parts—a circumstance which can only be accounted for on the supposition that they had become the seat of the affection at no very distant period from labour, and instead of derogating from, seem well calculated to strengthen the position already advanced, (*viz.*) that had venesection been earlier performed, the ratio in the accomplishment of the delivery would have been at least corresponding. In all such cases it would be satisfactory to be made acquainted with, whether practitioners in attendance had witnessed them from the commencement, or were called in at a future period—the latter of which is considered the most probable in the several instances here alluded to; whether, in the event of the former, upon examination of their patients, they considered it (*V.S.*) absolutely necessary, or were compelled to fly to it as a final resource; with a correct history of their state of health previous to in-lying, age, and other circumstances, as well as the length of time required for their convalescence, &c.

Notwithstanding the favourable termination of such examples, as those above referred to, they are upon the whole to be regarded in the light of exceptions to the general rule; and although they have been selected for the purpose of exhibiting the benefit to be derived from the operation, after a period of severe and protracted suffering, it will require nevertheless to be borne in mind, that this will, for the most part, be looked for in vain—at all events not until the lives of both mother and child be placed in a very perilous situation (witness Dr Smellie's patient) under circumstances of an opposite character; for instance, in proportion as she (the mother) may be delicate, or the os and cervix uteri have previously been the seat of rigidity or inflammatory action.

Should the propriety of early venesection be acquiesced in, and found of primary service, where the degree of excitement is generally diffused throughout the system, it is evident it must be equally indispensable in those cases in which it has “settled down upon important organs,” more especially those referred to in the preceding paragraph. In all such, whilst its effects must for the most part be inferior in degree, compared with the former, it is, especially in the less robust and enfeebled description of females, on that account the no less essential, as paving the way for the more effectual employment of other means.

Notwithstanding the attempt has been made to prove, that the salutary effects of venesection are chiefly confined to its performance at the commencement, or early in the course of the labour,

still—as certain of the authorities quoted have rather keenly contended for its employment, on account of an unyielding state of the perineum and other parts forming the out-let, during the second stage—it is here deemed expedient to repeat that, in accordance with the views already submitted to consideration, its powers in removing the obstruction in question have been crowned in the majority of cases where so employed, for reasons formerly explained, with very partial and imperfect success—and, with the exception of those cases, where the assistance of the practitioner has been requested at a protracted period of the confinement, ought never to be delayed, according as the pulse may indicate a necessity for the same—it being extremely difficult, if not impossible, to predict correctly whether such actually does, or to what extent it may exist; and in the event of the affirmative, the chances are all in favour, from early recourse to venesection, whilst an opposite practice must frequently give rise to resistance in these parts, where otherwise there would have been an entire exemption.

Although, from causes already explained, “it does not,” as has been correctly observed by Dr Ramsbotham, “certainly possess the same power in this as in the last case under consideration,” still, whenever the pulse is decidedly of the incompressible and wiry kind, and the patient’s strength not materially exhausted, it ought not in any case to be omitted on account that however small its effect may be in forwarding the progress of the delivery, it will unquestionably prove useful in stopping short, not only the untoward consequences attendant upon it, enumerated by Dr Ramsbotham, but also act as a *caveat* against those of a much more formidable character, which so frequently occur during the puerperal state.

Should it appear, however, that in consequence of the length of time which has elapsed, and the urgency and frequency of the labour throes, symptoms of exhaustion have taken place, it will be obvious that a period has arrived when it becomes the duty of the practitioner to exercise caution in the abstraction of blood, lest, by overstepping the mark, he may not only have to experience the mortification of witnessing, that in the majority of cases its effects are rather to retard than expedite the deliveries, but also to find that such a degree of debility has been induced as will require much time and attention to remove, and of which the consequences, in many constitutions, cannot be calculated upon.

Let, however, the employment of venesection, as a remedy in lessening the difficulties and advancing the progress of parturition, be found ever so successful, whether performed at the commencement, and during the first, and even the second stages, the fact is believed to be placed beyond the reach of contradiction, that, in all cases where the phlogistic action originates in the usual way, by means of an occasional survey of the sanguiferous system, and

judicious use of the lancet, in the manner formerly recommended, amongst every class and description of females to whom access is obtainable, during at least the two latter months of pregnancy, there would be but comparatively small necessity for recourse to it when the critical period did approach.

Were this plan more universally adopted, not only would the process be shortened, and consequently the sufferings of parturient females undergo a diminution, to which the greater number of them, it is conjectured, are entire strangers ; but, although, at first view he may feel inclined to treat it as an empty tale, such, it is believed, would be the saving of time and anxiety of mind to the attendant as to render his situation in many instances more of the nature of a work of relaxation and pleasure, than one of weariness and drudgery, which it too frequently becomes. By this means would not only the most formidable of the affections lately submitted to investigation, be either most effectually guarded against, or, where they had unfortunately obtained a footing, or existed as the results of former pregnancies, be most thoroughly divested of their resisting power ; but equally certain, it is imagined, would be the prevention of the injurious tendencies proceeding directly from the state of excitement treated of, with which both the second stage of labour, and the puerperal condition in general, are so much embarrassed.

The views here advanced respecting the nature and influences of sanguiferous excitement, seem not only to be borne out, but to obtain very considerable additional support from the well-established fact, that the difficulties attendant upon parturition, and the degree in which it (excitement) prevails, uniformly, with the exception of casual occurrences, go hand in hand, as may at any time be exemplified by contrasting the accounts given of the labours of females inhabiting latitudes differing in the extremes of heat and cold ; so that, whilst in the former there is wellnigh an entire exemption from the state in question, and where, consequently, by means of the relaxed condition of the system, the progress of the deliveries is, in most instances, comparatively easy, if not rapid, in their accomplishment ; in the latter it (the system) is so much under the constrictive power of the affection as to render the same in equal measure tedious and painful, in the fullest sense of the terms.

In submitting to notice the circumstances now mentioned, it is to be kept in view that they refer solely to nations and countries where civilization has acquired, if not complete, at least considerable footing,—reserving for a future part of the inquiry certain observations relative to the state of parturition amongst the numberless uncultivated hordes scattered abroad throughout the world, who, following on from generation to generation in the same course of barbarism, and the laws of pastoral life, spend the greater part of their time in migrating from place to place.

ON THE
PROPERTIES AND EFFECTS OF OPIUM.

Circumstances demanding its use.

IN commencing the following inquiry respecting the virtues of opium, as applicable to the pregnant, but more especially the parturient state, the principal consideration aimed at, or deemed necessary, is to present an outline or summary of these (virtues) by exhibiting, as correctly and concisely as possible, the various influences it is found capable of exerting upon the system, when employed with the view to counteract the effects consequent upon the existence of inflammatory or spasmodic disease, whether administered in a general or local form. At what precise period this important drug was introduced into midwifery practice, I have been unable to ascertain, but should be disposed to believe it was at one considerably remote, when its sedative effects came to be generally understood. Both Drs Smellie and Denman, recommend its use in severe or lingering cases, by the former of whom it seems to have been pretty freely employed for the purposes of allaying pain and procuring sleep, and always by the mouth. Dr Googh, strangely enough ridicules the idea of giving it in any case (see p. 183), and seems to place the most implicit confidence in the *tincture of time*, which he assures us to be *incapable of producing any additional evils*.

The sentiments of Dr Campbell on this subject, on account of the celebrity he has attained as a practitioner and writer, it is considered necessary to quote at length. At p. 190, he says:—"In all the causes of protraction which have now been mentioned, the tinctur a opii, given in the form of enema, to produce relaxation, has been of great utility where venesection has failed to effect this object:" two drachms of the tincture, added to an equal

quantity of solution of starch, in four ounces tepid water, is the most eligible mode of its exhibition. "But here," adds Dr C., "I think it proper to caution the novice against that indiscriminate use of this drug which is so general among our younger members, during their attendance on women in labour, that it ought to be severely reprobated."

"In the foregoing cases of protraction, venesection should always have a fair trial before this medicine be exhibited, lest it might be followed by such torpor of the uterus as should retard the contraction of this organ after its contents have been evacuated."

Again, at p. 226, the following copious paragraph occurs:—"The exhibition of opium has often been mentioned in this order, and as it is a medicine of great and unquestionable utility under many circumstances during parturition, though, from its abuse, occasionally brought into discredit, I think it necessary to state, in conclusion, that during the second stage at least, it should not be prescribed without mature deliberation. As it is impossible beforehand to determine whether this drug may for a time suspend, or temporarily excite uterine action, it should not be exhibited in the second stage unless the practitioner has had sufficient experience to discern whether the pelvis be of proper form or capacity, and its linings free from tenderness. For, were they otherwise, and that opium had led to the suspension of labour, the continued pressure of the head on the pelvic linings could not fail to add to the existing irritation, and be productive perhaps of painful results." How important the service rendered the profession, had a practitioner of such experience as Dr Campbell more fully entered into the minutiae respecting the properties and rules for the administration of this peerless drug.

Dr Burns recommends the liberal use of opium, both by the mouth and in form of enema. In his chapter on tedious labour, p. 455, he states:—"In such cases, and even when the state of the os uteri has warranted the rupture of the membranes; but as the expected benefit has not arrived, we may derive advantage from giving a large dose of laudanum; for in this spasm, like tetanus, it may be taken in large doses. Even ten grains of opium have been given, but in general sixty drops of laudanum are sufficient; and when this remains on the stomach, it is, from its more speedy effect, preferable to solid opium; or an anodyne clyster may be employed."

Professor Hamilton, in the sequel to his directions respecting venesection, thus remarks,—“but cases from time to time occur when the patient cannot bear the loss of blood, and where it becomes necessary to administer an opiate enema.” At p. 137, after tendering a candid declaration in favour of the use of opium in obstetric practice, again proceeds,—“The utility and safety of the practice are mainly influenced by the time at which it is

adopted. If strong and frequent pains, continued for six or eight hours, do not decidedly promote the dilatation, the opiate enema should be had recourse to, and it will seldom disappoint the expectations of the practitioner. But if the first stage (with strong and frequent pains) be allowed to go on for twelve hours or upwards, without having completed the dilatation of the os uteri, there is the risk that the opiate will so far interfere with the progress of the labour, that instrumental delivery shall become necessary."

Dr Rigby also repeatedly makes mention of the use of opiates, and seems to entertain a partiality for the pulv. doveri, which, of course, he would always direct to be administered by the mouth; whilst by Drs Ramsbotham and Blundell, any remarks offered are extremely unimportant, and unworthy of being transcribed.

From a comparison of the quotations here brought together, it will be found that, like those relating to venesection, a considerable diversity of opinion prevails with regard to the circumstances demanding the dose and manner of administration, and also the period of the labour most suitable for the same; and that, whilst by the latest and most strenuous advocates for its use, its safety and utility are acknowledged in the most ample and glowing terms, the *modus operandi*, as well as the rules and principles by which the young practitioner is to be guided, in the employment of an auxiliary so important, are but imperfectly described and established, if not altogether undefined.

Upon a perusal of the pages relative to venesection, it will be observed, that amongst other effects consequent upon the state of excitement, that of debility (see p. 30) occupies a very prominent place. Unless in very delicate constitutions, this is seldom conspicuous, so long as the system generally is affected; when, however, particular parts or organs have been subjected to its influence, notwithstanding the remedial measures may have been applied with promptitude, the debilitating tendency soon becomes apparent, and, it is obvious, will be met with in different gradations, in proportion to the severity and duration of the original affection.

Whilst no part or organ, pertaining to the female system generally, is exempted from becoming occasionally the seat of the congestive process during the pregnant state, those affected, in by far the most numerous list of cases, for reasons formerly explained, are found to be the os and cervix uteri, vaginal canal, and perineum.

The condition also to which the term rigidity seems more aptly to apply, although differing widely in its more genuine form, with regard to the manner of its production, will, with few exceptions, be found to exert very analogous effects over the parts in question—to give rise to a similarity of symptoms upon the approach and during the progress of labour—and, consequently, to require

for its removal a mode of treatment corresponding in its principal features with that demanded in the cases where resistance to the free action of the uterus occurs more directly, as the result of phlogistic action.

“Opium,” says Dr Christison, “is in various circumstances a narcotic, anodyne, hypnotic, and calmative, a stimulant, and a sedative, a diaphoretic, and an inspissant of the mucous secretions.”

In connection with others above named, as circumstances may seem to require, it is to its stimulating, or what might with equal propriety, it is conceived, be termed its tonic effect, to which attention is wished more particularly to be directed in the ensuing discussion.

It has been already remarked (p. 31), that the equilibrium state of the system is the most favourable for the free and easy transit of the foetus through the pelvis. In all the cases, therefore, where sanguiferous excitement has arisen during pregnancy, if moderate in degree, and the lancet be employed in the manner formerly recommended on the accession of labour upon patients of sound and healthy constitutions, the effect will be such as scarcely to offer any interruption to its progress; but after a certain pause, regular and efficient action will commence, by means of which the delivery will be completed before the lapse of many hours. A very different effect, will, however, be witnessed even in the same class of females, in proportion to the degree of severity and duration of the affection, and which will suffer a further increase in those possessed of less corporeal energy, and one still greater in many of the instances where the os and cervix uteri have become subjected to its influence. Under these circumstances, whatever may prove the length of the interval from pains immediately succeeding to V.S., upon their recurrence, instead of the regular and efficient nature above described, they will uniformly be found more or less irregular in their attacks, as well as inefficient in promoting dilatation.

In all cases where the presence of the conditions above enumerated may be satisfactorily proved, and a recurrence of pains takes place, posterior to venesection, without exerting the desired effect on the uterine aperture, the existence of one or both of the following causes may be suspected—either the os and cervix uteri present an undue degree of resistance, or the powers of the general system are in a very languid and enfeebled state. In most instances, these are more or less intimately blended together for reasons specified in the former part of the treatise.

In the exhibition of opium, in order to remedy the untoward consequences here spoken of, the object the practitioner ought to have chiefly, if not wholly in view, is to counteract the effects resulting from the phlogistic state having settled down upon organs intimately connected with the parturient process—a work which, it is obvious, must become much more difficult of execution in

certain cases than in others, from circumstances recently disclosed ; so that, whilst in some, where the patients are possessed of strength and vigour, and the affection has only existed for a very limited space, the interruption to the progress of dilatation will be completely overcome by the administration of a single, or, at farthest a repeated dose ; in others, the consequences will be such as to require much attention and discrimination on the part of the attendant as regards its employment, as well as larger and more frequently repeated doses of the drug, so that he may terminate the labour with comparative ease and safety, than what has hitherto been either recommended or sanctioned by any obstetric writer.

For the purpose of assisting in the illustration of the proposition here advanced, it is believed that a very considerable similarity of practice is witnessed in the treatment adopted in the majority of ophthalmic cases to which reference has been already made. In order to arrest the progress of this disease, and relieve the oppressed state of the system generally, venesection is primarily had recourse to ; and as soon as this is in some degree accomplished, aided in the most of instances by means of topical bleeding with leeches, &c., the aid of opium is called in, and its administration, both internally and locally, adopted in order to obviate a state of irritability and weakness, and induce a healthy action in the organ ; the identical circumstances requiring to be brought about in the case under observation.

Upon reflection, however, it cannot fail to be discovered that, in obstetric practice generally, but more especially in those cases where the os uteri, or other parts more immediately concerned in parturition, have become the seat of phlogosis, there are certain disadvantages to be contended with, from which ophthalmia, and inflammatory affections of most other organs and parts of the body, are wellnigh exempted. In every instance of the former, and nearly the whole of the latter, blood can be abstracted by the direct application of leeches, &c., to the seat of the injury, whilst no such conquest, as far as my information extends, has ever yet been achieved over the organs referred to in the case of the parturient female.

One exactly similar applies to the exhibition of opium. In ophthalmia, this can and is uniformly effected with a benefit which could not be otherwise obtained. In parturition, no similar mode of practice can by any possible means ever be accomplished, so that all the advantages derivable from it in forwarding the dilatation of the generative organs, and, consequently, expediting the progress of the delivery, must take place after it has entered the system, through some other channel. This, however, is, upon the whole, a matter of small importance, because the instances, if any, are extremely rare, in which its effects upon the uterine organs can be exerted without the general system requiring to be first brought under its influence. A difference is likewise discerni-

ble betwixt its *modus operandi* when applied locally in ophthalmia and the state in question.

“Topically,” adds Dr Christison (see *Disp.*, p. 680), “it is a direct stimulant, and indirect sedative, both of the nervous and muscular systems. An infusion dropped into the eye, in chronic ophthalmia, for example, at first increases pain and redness; but these effects are speedily followed by departure of pain, diminished vascularity, and inferior sensibility to the action of other more powerful stimulants.”

The contrary is the rule rather than the exception in the latter; it first exerts a sedative, and very frequently a hypnotic effect is necessary upon the patient, before its stimulating properties become apparent, or are rendered available; a circumstance which is to be ascribed solely to the respective forms of its administration, and is quite in accordance with the principles on which its exhibition is founded. The comparative degrees of sedative and hypnotic effects requiring to be produced, and of course the quantity of opium needful to be employed, will be found to depend greatly on that of excitement affecting the os and cervix uteri, &c., viewed in connection with the robust or delicate state of the patient.

Hitherto the discussion respecting the advantage of opium in midwifery practice, has been confined wholly to the numerous list of cases where a degree of excitement more or less affecting the female system generally, but more especially the generative organs, forms the chief source of resistance to the free transit of the foetus. The same remark respecting its exhibition will equally apply to the state of rigidity affecting elderly females, as before observed, and also to every case in which the patient's strength, from whatever cause, becomes prostrated below the equilibrium, and where venesection is clearly contra-indicated by the absence of the wiry pulse formerly described.

Experience likewise warrants the assertion that several other interrupting causes, (*viz.*) a large or firmly ossified condition of the child's head (hydrocephalic and other morbid states excepted), or where the pelvis is rather of diminutive size, and likewise where it is of usual dimensions, but to a certain extent distorted in figure; cases of bands and cicatrices in the vagina, the effect of the improper use of instruments in former deliveries; and also certain torpid conditions of the uterus to be afterwards particularly treated of, give way to its seasonable and judicious use. The manner in which it affords the requisite aid is by recruiting and sustaining the vigour of the system until the opposing forces be overcome.

Mode of Administration.

The different methods of administering opium in obstetric practice are the same as in other complaints, either by the mouth

or bowels, in the form of enema or that of suppository. The former seems to have been the only practice long in use amongst accoucheurs—the latter of more recent origin; circumstances which would appear to account in some measure for the diversity of opinion respecting its influences in facilitating and advancing the progress of labour.

In the selection of the preferable mode for the exhibition of any medicine or remedy whatever, a careful comparison should always be instituted with regard to the results produced by either form, according to the quantity administered, &c. In applying this touchstone to the question in hand, the discrepancy which exists is very material, and can be readily discovered by the attentive and intelligent observer.

The usual effects of opium in a person unaccustomed to its use are well enumerated by Dr C. (p. 682), viz.—“dry tongue and thirst, headache, nausea, vomiting, if the erect position be assumed, languor, discomfort, and undefinable misery. These symptoms are so frequently met with in medical practice, as to be generally called the subsequent effects of opium.” By contrasting in the same individual the above perhaps occasionally variable consequences, as they manifest themselves under the separate forms of administration, it will, there can be no hesitation in stating, prove the never failing rule, that these *subsequent effects* are present in much higher degree posterior to the dose received directly into the stomach, than to that exhibited by the rectum, even should the same be multiplied in the latter case several times. The reason of this is obvious, in the fact that it enters the system through a channel remote from the organs more immediately concerned in digestion, where absorption does not take place so readily or completely as from the stomach; and where this latter organ is only pervaded with its influences in common with other parts, for which reasons the effects mentioned will prove much less annoying, compared with the quantity received, than when administered by the mouth. Certain of these, however, require more particular consideration. The first is headache and febrile symptoms in general, which, in many instances, prove very distressing. With scarcely an exception, these will be found to occur with much greater severity upon the exhibition of opium by the mouth, than otherwise, and when they do so (more especially headache), uterine action generally becomes suspended, and very often the issue of the labour is long doubtful, requiring at length to be finished by instrumental assistance, occasionally not before the child has ceased to exist, or its destruction to be effected by the operation of embryulcia.

“Opium,” says Dr C., “exerts its remote action on the brain, through whatever channel it is introduced into the body.” This, like every other effect, takes place in very different degrees in different individuals.

In a few, however, instead of the tranquillizing effects generally witnessed for a period of longer or shorter duration, a state of temporary delirium suddenly takes place, which uniformly exerts a bad influence on the labour; and is an occurrence met with after the exhibition of an opiate draught, which rarely happens when prescribed in the form of enema, notwithstanding the quantity may be much increased; and, unless in cases of maltreatment, is always the result of constitutional temperament. With the exception of certain other instances,—where a peculiar susceptibility to the effect of opium prevails, without, however, giving rise to the state of delirium above described, but only distressing sickness at stomach, with inclination to retch, together with greater affection of the head, and inability to endure the light, than usually happens,—the only risk of headache from the use of opium in the way of enema, is in lingering difficult cases, where a considerable quantity is required, and where, at same time, minute attention has not been paid to the state of the bowels or arterial system.

Laying aside, however, these considerations, since the fact is at any time capable of ample demonstration at the bed side of the patient, that in every case where the use of opium is indicated, the practitioner possesses the power, not only of abating the violence and irregularity of the parturient efforts, and shortening the period of the delivery, whilst at the same time it is divested of its injurious tendencies in a much more effectual manner by means of directing its administration by the latter than the former mode, a doubt cannot remain that, in every instance where practicable, it is entitled to the preference, especially during the early stage, when symptoms of excitement are more liable to occur.

It not unfrequently happens that, in consequence of the exhibition of stimulating clysters, or it may chance a naturally lax state of the sphincter ani, much difficulty is experienced in preventing the almost immediate return of the enema,—a circumstance which has given rise to the practice of introducing it in the solid state, or, as it is termed, by way of suppository, and which, upon the whole, answers extremely well. It is not, from obvious reasons, so well adapted for cases of urgency where its effects require to be speedily developed, and the dose cannot be apportioned with the same nicety as in the fluid state, but will be found particularly useful under the circumstances mentioned, or where the patient may possess antipathy against the use of enemata in those of a more lingering kind.

Notwithstanding, the scale of evidence will be found greatly to preponderate in favour of the exhibition of opium by the rectum rather than by the stomach, it must not be supposed that the latter method is condemned as wholly useless or improper. In many cases, especially where the powers of the system are languid, and the resisting forces moderate, prescribed in this

way, it will prove extremely serviceable as a stimulant, when given in small repeated doses, alternated occasionally with others of larger amount by the bowels; and these can be rendered still more ample, under due regulations, during the second stage, when the descent of the head into the pelvis in general renders the administration of enemata difficult, and its effects in accelerating the succeeding steps of the delivery are often very speedy and well marked, by means of the renewed energy which it imparts.

It need only farther to be observed, that the facilities in conducting the plan under consideration, will be found to lessen more rapidly in proportion to the number and magnitude of the resisting causes, compared with the other, whilst its results can seldom, if ever, be calculated upon with the same clearness and uniformity of success.

Period of Administration.

In every case of supposed labour, it will prove the most obvious policy on the part of the practitioner, how soon convenience will suit after his arrival at the bed side of his patient, to examine minutely respecting her situation. Unless the circumstances are such as render its existence extremely probable, if not wholly certain, (viz.) when regular and pretty severe uterine action has for some length of time been established, accompanied with repeated discharge of the liq. amnii, the most eligible mode of procedure will be to commence the scrutiny by attention to the state of the circulation and bowels. These having been ascertained, and remedied, if necessary, to the required extent,—should a short respite from pains take place, which generally happens, more especially after venesection, all manner of interference should be avoided so long as this continues; seeing that by means of it, the uterus is enabled more fully to perform its proper function, and act with greater energy and effect.

Upon their return, and an examination into the condition of the os uteri being instituted, should the former be regular in their attacks, with proportionable increase in the size of the latter; the state of the presentation, when such can be discovered, likewise natural, together with an absence of every circumstance unfavourable on the part of the patient herself, all farther attempts to ameliorate her situation, only serve to disturb the course of the labour, and cannot be too much deprecated. Should matters however be reversed, and it be discovered, that, instead of the favourable appearances above mentioned, a recurrence of pains of the nature described at p. 44, had for some length of time been substituted, it is believed, that, in the view of the intelligent and reflecting practitioner, the evidence will appear of no trifling kind, that if labour be actually commenced, a departure has taken place from the most natural and easy course; and that, should the same be permitted to continue for a period

of even moderate duration, the effects must be such as greatly to fatigue the patient, and procrastinate her delivery, if not in many cases to adduce the additional train of evils enumerated in page 2. Should the crisis in question not have fully arrived, it is considered unnecessary to enter into detail respecting advantages which must accrue from cutting short, as early as possible, a fertile source of complaint, which seldom fails to prove extremely distressing to females, to occasion much waste of time and anxiety to the attendant, and injurious to labour when it does occur.

In having recourse to the prompt and judicious use of opium under the preceding circumstances, the accomplishment of several very important purposes are effected. In cases where the pains are of a spurious nature, resulting from the phlogistic action having become extended to the os and cervix uteri, by allaying these, and at the same time affording an opportunity for rest and sleep, the patient obtains renewed vigour, whilst the resisting power of the parts is in a great measure overcome, and the way thus more effectually paved for the transmission of the foetal head than otherwise it would.

When, however, by the “decided tightning of the edges of the os uteri,” labour is found to have commenced, by restraining the inordinate and inefficient action of the uterus, in addition to the other effects above alluded to, and thereby not only acting as a *caveat* against the premature waste, but in the most decisive manner augmenting the strength of the patient, the value of its *early administration* is enhanced in the highest degree. It is a fact deserving to be deeply imprinted on the mind of every young practitioner, that few causes are productive of greater difficulties and delay, in the way of the delivery, and consequently of suffering in its varied forms, than a sudden or extensive decline of the corporeal energies before the first stage be completed; when such takes place, it is an extremely arduous, if not in many cases, a task which sets at defiance the adoption of the most vigorous and best directed measures again to remedy, giving rise occasionally to consequences of the most painful and uninviting kind.

The rule of giving in every case the preference to venesection, laid down in several of the works referred to, and already somewhat explicitly inculcated in the foregoing pages, demands a still more minute and thorough elucidation respecting the tendencies its rigid compliance with, or partial or entire departure from, is calculated to produce. In arriving at a correct estimate respecting these, all we require, is to consider them with attention, as they appear in cases of ophthalmia or other inflammatory diseases. Should opium be administered during an excited state of the system, attended with incompressible pulse, although it may seem for a time to lull the most prominent symptoms, and thereby soothe the anguish of the patient, it seldom fails to aggravate rather than diminish the virulence of the disease; and if persisted in for some

time, to increase its dangers, and render the effects of venesection less salutary and certain. If applied locally to the eye in a state of acute inflammation, the results are generally an immediate and violent increase of the symptoms.

Not so, however, when venesection has been previously performed—opium can then be borne, and its use continued with the greatest benefit. The same happens in the case of the parturient female, modified of course by the degree of excitement present. When administered prior to V.S., in the form of enema, it serves uniformly rather to retard the labour than otherwise; but if by the mouth in any considerable quantity, it frequently puts a stop to it altogether, giving rise to the *subsequent effects* in a still more increased degree. Even when exhibited by the rectum, it very often speedily paralyzes the uterine efforts to such extent, as to protract the delivery for twenty-four hours, or even longer, than might otherwise have been calculated upon; rendering now and then the use of the forceps necessary, and sometimes the inevitable destruction of the child.

In contrasting the effects betwixt the action of opium in obstetric practice, and inflammatory or spasmodic disease generally, it has to be recollected that, in the former, these are more difficult to obtain in a state of uniformity—having to fit the system for the discharge of an important function, than in the latter, where the principal indications are to allay pain and procure sleep. The difference is most conspicuous amongst delicate and weakly individuals.

Like venesection, the period set apart for its administration by authors is likewise different. Dr Hamilton fixes it at from six to eight hours of strong and frequent pains—but whether this be the number posterior to V.S., or if they are both to be had recourse to together, he does not properly explain. How such doctrine is reconcileable with the laws of scientific knowledge, seems difficult of conception. Would not the skill or philanthropy of a medical attendant be liable to be called in question, were he to allow a patient, labouring under any spasmodic disease, to endure the extremity of pain for six or eight hours, with no other prospect of alleviation to his sufferings, before prescribing for him an opiate draught?

By the early and judicious employment of opium, under the circumstances already adverted to, the delivery will in many cases be completed long before the expiry of the period of administration limited by Dr H., and in those where it cannot, the difficulties will be found to be increased both in number and force, should its exhibition be postponed till towards the conclusion, compared with where the same is carried into effect, about or shortly after the commencement.

His second proposition, “but if the first stage (with strong and frequent pains) be allowed to go on for twelve hours or upwards, without having completed the dilatation of the os uteri,

there is the risk that the opiate will so far interfere with the progress of the labour, that instrumental delivery shall become necessary," seems expressed in too desultory and general a style. Is there not, the question naturally occurs, the same risk of instrumental delivery being required in many such in which opium has not been employed at all? Can the permission of such a state of things be viewed in any other light, than as tending speedily to undermine the energies of the system, and expose the poor patient to all the horrors incident to neglect and maltreatment, related by him at pp. 131 and 203. Whilst in all such the judicious employment of opium would at least prove harmless, in many the effects would be of the most salutary kind; and if at any time they should act as the cause of paralyzing the uterine efforts when still in a slightly efficient state, the fault does not attach to the medicine, but its administration. By referring to what has formerly been stated, it is obvious, that in all such instances, much will depend on the arterial system, and how this has been attended to on the accession of labour. Should excitement have prevailed, and no abstraction of blood been performed, the chances from opium are much fewer than otherwise. Experience, however, warrants the assertion, that even here, by its well directed use, much suffering may be averted from the mother, and the life of the child often happily preserved; more care being exercised, that whilst it is exhibited in quantity, or doses sufficient to counteract the violence and frequency of the efforts, it may not throw the system into a state of torpor, from which, when it is much reduced, it is very difficult to recover.

Whilst the possibility of the fear entertained by Dr Campbell, at p. 190, is admitted, the occurrence is believed to be extremely rare, and can never happen in any case where the delivery is completed without the aid of mechanical force. Even under a reverse of circumstances, unless the quantity exhibited be very considerable, it would appear difficult to determine whether the event mentioned was the effect of the opium, or the engorged and debilitated state of the organs.

His cautions at p. 226, respecting its administration during the second stage, demand particular attention, and can only be fully complied with by a careful survey of the arterial system, the nature and frequency of the pains, with their effect in advancing the dilatation, in connection with the robust or weakly state of the patient, &c. When these are fully considered, there seems no real ground for believing it so impossible beforehand to decide concerning the manner of its operation, as Dr C. seems to suppose. It is readily allowed, that it is impossible beforehand to determine the exact length of time from its exhibition before it exerts this stimulating action; but that is of little importance when we are qualified to know the nature of the cases in which it shall assuredly sooner or later take place.

As intimated at p. 46, it is the very states of the pelvis to

which Dr Campbell's allusions are more particularly applicable, in which, in my own practice, its success has been most signally displayed. Conclusions of a very similar nature have been arrived at, respecting an irritable state of the pelvic linings and parts forming the outlet. The effect which it possesses in soothing cases of the latter description, is truly astonishing. As this state may in general be very early discovered, by the pain and difficulty experienced in the introduction of the finger, &c., and can only receive the full benefit flowing from opium, when exhibited at the commencement of the labour, an additional motive is thus adduced in favour of a strict survey of every case, and the early administration of the drug.

As an inflamed state of the linings of the pelvis, is believed, in almost every instance, to arise from neglected venesection, and every other cause which tends to protract unnecessarily the first stage of labour, the prophylactic mode of treatment should therefore be the more rigorously enjoined; but when such a condition is found to exist, is it an ascertained fact, allowing that opium should lead to the suspension of labour, that the pressure of the head against the irritable membrane should be productive of greater injury when lying at a state of rest, than it was when urged on by a continuance of severe and ineffectual pains? Reasoning *a priori*, the inferences would seem to favour the idea, that opium would exercise a soothing influence here also, and such has been imagined to have been repeatedly witnessed: that it serves greatly to recruit the languid powers of the patient, there can be no doubt.

Like venesection, were opium had recourse to prior to confinement, according to the rules here laid down, in all cases in which nocturnal spasmodic pains occurred, it would not fail speedily to effect their removal, and thus render the process still more simple and easy, than when employed during the period of the delivery itself.

Having thrown together, and arranged in order, as correctly as circumstances would permit, the preceding list of observations relative to the effects of these remedies in obstetric practice, it remains now to endeavour to demonstrate their truth by a concise and suitable appeal to cases, commencing with a specimen or two of the milder sort, in which venesection only was necessary to render the delivery both expeditious and easy.

CASE I.—During my attendance on the winter-course of lectures, delivered by Dr Thatcher, Edinburgh, on the principles and practice of midwifery, session 1819–20, I was called upon one evening in December, about nine o'clock, to witness the progress of labour, in the wife of an humble weaver, who had already given birth to several children. Upon my arrival at the house, in company with the gentleman on whom the responsibility of the

delivery devolved, our patient was found sitting by the fire, apparently a woman originally of strong and sound constitution; the symptoms being such as to render it uncertain whether parturition was immediately to take place.

Upon investigating the state of the pulse, the abstraction of blood was fully indicated, to which her assent could not readily be obtained. Being obliged, however, to comply, an ample incision was made in the vein, and twelve or fourteen ounces speedily withdrawn in a flowing stream. Uterine action, which was before very indistinct and tardy, soon becoming brisk and regular, with a corresponding advance in the dilatation of the passages, and protrusion and rupture of the membranes, the birth of a son was safely effected in the course of an hour and a half.

The principal inference deducible from this case, is, that it was one in which a degree of sanguiferous excitement was confined solely to the general system—and where, consequently, upon its removal, every interruption instantly vanished. But for the early and prompt use of the lancet, our presence might have graced this family circle for perhaps the space of twenty-four hours, and the labour been rendered not a little tedious. It is the same referred to at p. 35, and well exemplifies the advantage of early venesection, under the circumstances above specified.

Had the condition of the pulse been found similar, and V.S. performed eight or ten days sooner, the delivery would have been still more rapid.

The truth of this statement is well illustrated in such examples as the following:—

CASE 2.—Mrs W., the wife of a respectable farmer, drew near the period of confinement, with her third child. The first, which took place in January 1843, owing to causes hereafter to be alluded to, occupied the space of nine or ten hours: the child being still-born. The second, in February 1844, from three to four. At the period in question, which was the commencement of January 1846, chancing to call that way, I found her a good deal agitated, complaining of occasional attacks of pains in her back and bowels, occurring at irregular intervals, which she was induced to look upon as the symptoms of approaching delivery. Several hours after, when a degree of chilliness with which she was then affected, had subsided, the pulse feeling wiry and incompressible, venesection was forthwith performed, and about ten ounces of blood, of looser texture than ordinary and considerably incrustated with fibrine, taken away. It soon became apparent that the expected crisis was not yet at hand.

Being enabled, however, to judge, from the nature of her former delivery, in conjunction with the shortness of the period since the rise of the phlogistic action, that the generative organs were exempted from its effects, I had no hesitation in affirming that,

when it did so, it would also speedily come to a close. Having intimated this, and that she would not until then experience any further annoyance from the return of pains, with an urgent request to be sent for the moment any alteration was felt in her situation, I took my leave, and received no further intelligence until half-past three o'clock, A.M., of 18th, eight or ten days after my last visit—when, notwithstanding I used all diligence in obeying the summons, and having only the distance of a mile and a half to ride, I was able only to reach her fifteen or twenty minutes before the accouchement of a daughter was completed, occupying on the whole little more than an hour.

In order to obtain results similar to the above, a combination of certain circumstances is essentially necessary. In addition to the absence of phlogistic action, the system at large, and generative organs, must harmonize, or as it is termed, be in equilibrio in point of strength and relaxing effect, with at least corresponding relations between the size of the pelvis and head of the foetus, qualities happily conjoined in the case of Mrs W., who, it will be observed, was still farther favourably inclined for speedy delivery, on account of the naturally lax state of her system, as proved by the loose coagulum the blood yielded on cooling, although her constitution had never been injured by disease or difficult parturition.

CASE 3.—Mrs M'R., the wife of a small farmer in a neighbouring parish, who had been confined to bed during a great part of the winter, on account of an asthmatic affection to which she had formerly been subject, without any medical aid having been called in on the present occasion, and who had previously given birth to three or four children, was seized with pains resembling those of labour, early on morning of 1st of March 1837, when her husband came to me, although no previous intimation had been given, with a request that I would attend her. I sent him away, desiring him to take along with him a country midwife, who lay almost in his way, lest the case might prove very lingering, and followed soon after.

Upon reaching the house, I found my patient labouring under very considerable prostration of strength, not so much in consequence of her long confinement, as the total neglect of her disease. Upon examination, the os uteri could scarcely be reached, although a pretty regular occurrence of pains and other symptoms intimated that labour had commenced.

After the bowels were emptied by means of a clyster, the pulse was found to possess a tolerable degree of sharpness and incompressibility, such as to require the abstraction of nearly ten ounces of blood, which became very sizzly on cooling. A cessation of uterine action for some time took place, and when it again returned, became more concentrated in the back, without exerting any material

effect upon the orifice, which, however, could now be felt slightly opened, and apparently quite free from excitement or rigidity.

Upon reflection, I felt persuaded that unless some further measures were successful, under the existing circumstances of the patient, the delivery would be much protracted, and its issue uncertain. Being provided with a supply of crude opium, and having proved its salutary effect in many former cases, I felt anxious to try it in this also. About six grains, dissolved in a little boiling water, were directed as an enema, the purposes desirous of attainment, being to allay the present perplexing and unprofitable action, and, in course, to induce one of a more lively and effective nature. The first of these being but partially accomplished at the expiry of about three-fourths of an hour, the same was repeated, nearly of equal strength, which soon completed what the former had begun, and a cessation of pains took place, for at least thirty or forty minutes—when the system having acquired the necessary degree of stimulus, the uterus became roused to energetic action, followed by the birth of a daughter, within three hours after my arrival.

This patient never complained of sickness or headache, in consequence of the opium—had an excellent recovery; and, save a slight attack of bronchitis, upwards of twelve months ago, has enjoyed better health ever since, than she did for several years before, without becoming again pregnant.

In directing attention to the general features of the preceding history, it will not be difficult to comprehend that the incompetency of the uterine efforts, prior to the exhibition of the opium, was solely owing to the weak condition of the propelling powers, as was well attested by the energetic manner in which the organs acted as soon as these became invigorated to the necessary pitch. Had V.S. been performed towards the conclusion of the seventh month of pregnancy, when there is no doubt it was absolutely required, the system would then have been liberated, and again returned to the equilibrium state, before the full period of gestation; in the event of which, there is every probability that the labour would have been concluded without additional aid, in about the same brief space as the former instance.

The only satisfactory reason why the generative organs were so free from vascular excitement, is, that it found a ready prepared outlet by the lungs.

I deem it proper here to state, that from its being at all seasons more portable and ready at hand with the tincture, I was for many years in the habit of using chiefly solid opium, dissolved in the manner described; and unless, in cases where particular nicety was required, found it to answer extremely well; six grains being about equal to a drachm and a half of the former, is a medium dose. In certain cases, as where the expulsive efforts are

effective, but weak and dilatory in forwarding the dilatation, from three to four may sometimes exert a beneficial effect—but, in general, a still greater quantity is requisite, and can be borne with impunity. Unless, however, the practitioner has enjoyed pretty frequent opportunities of witnessing its operation, with the exception of cases where he is assured that the resistance to be encountered is very considerable, it will be found the most advisable plan to commence as above directed, afterwards repeating or modifying the dose, as circumstances may demand.

More recently the mur. morph. has been repeatedly substituted as possessing qualifications still less exceptionable than opium, in average doses of from three-fourths to a single grain. The quantity of water employed for their solution should be very limited, never exceeding an ounce,* and is best administered by means of a syringe fitted up for the purpose, by Mr Young, instrument-maker, Edinburgh, which will inject the amount specified, at twice.

The advantages of this simple instrument over the more ponderous domestic apparatus, or clyster bag of the midwife, and which is the conjoint construction of Mr Young and myself, have been found so important as to enable me to speak with confidence in its praise. In the absence of a nurse, any dexterous female can be speedily instructed as to the manner of its use.

Cases where excited Vascular Action had settled down upon the Os and Cervix Uteri, and parts more externally situated.

CASE 4.—I was summoned on evening of 1st October 1841, to visit Mrs H., the wife of a mason about three miles distant, who was apparently forty years of age or upwards. She seemed originally possessed of a sound and strong constitution, and had already given birth to twelve children. The greater number of her

* The more common plan in the use of enemata, has been to combine, with the respective ingredients, a large proportion of water. It is a good many years since I perceived the disadvantage of this method; chiefly on the following grounds:—In cases where those of an acrid nature, such as mur. sodæ, were required to empty the rectum, by employing much liquid the quantity of the latter behoved to be proportionally increased, or otherwise it was rendered useless from too great dilution, so that sometimes a repetition became necessary. On the other hand, instances are not unfrequent, in which much difficulty is experienced in propelling the liquor, from descent of the head or other causes—so that in both cases, the proposed ends are often but very imperfectly accomplished, if not entirely frustrated.

If this holds good in the matter of those of a cathartic nature, it is no less so in the exhibition of opium, more especially in cases of urgency, where its speedy operation is of the utmost consequence; and also where, from whatever cause, it becomes very difficult to prevent the almost immediate rejection of the same. By making use of a sparing quantity of fluid, the greater number of these inconveniences will be avoided.

In reply, it may be urged that the fomenting quality of water at a certain temperature thrown into the bowels is of essential service. That it is not so when conjoined with cathartic substances, where its expulsion takes place almost simultaneous, no doubt can exist; and in the exhibition of opium, it does not appear evident that benefit can often accrue from the practice, but rather the contrary,—so that if the virtues of water be entitled to high estimation, they had better not be intermingled with those of other remedies.

deliveries had been lingering, and accounted difficult, during several of which she had been attended by a male practitioner.

I had only met with this female once some length of time before, she having but lately taken possession of her present residence, and then she appeared to enjoy good health. For several weeks previous to confinement, however, she had begun to feel very uncomfortable and uneasy, especially during the night; and although not altogether assured of the immediate approach of labour, had given me early intimation, at my own urgent request, upon the occurrence of certain changes during the preceding afternoon.

Notwithstanding, a lapse of several hours was unavoidably incurred, before I could reach her place of abode, I found her sitting by the fire, as if no such event were about to happen; the pains which annoyed her occasionally in the course of the afternoon having in a great measure subsided.

I felt the more anxious concerning the present position of this case, on account of having a particular engagement to attend to during the following day; and it being then about 11 P.M., I was thereby reminded that a short intervening space consequently only remained.

The pulse, after the evacuation of the contents of the rectum, by a stimulating clyster, feeling considerably excited and wiry, about twelve ounces of sily blood was immediately after withdrawn, without being followed by any particular result. Being determined, however, to press the question at issue, as closely as possible, and she now and then continuing to experience slight occurrences of pain in her back, &c., an enema, containing about six grains opium in solution was next administered.

From its being extremely difficult to reach the os uteri, the routine of treatment here described, was gone through without any certainty as to whether or not labour was actually about to commence. All doubts upon the subject, however, were doomed speedily to be dispelled by the recurrence of brisk, regular pains, attended with "decided tightning of its edges," now capable of being felt in a very thickened, irritable state. For a short time the pains continued, effecting a material change in the size of the orifice, but as soon as the influence of the opium began to subside, became again teasing and useless, rendering the repetition of the enema necessary within an hour and a half, which had the desired effect of balancing the system and generative organs to the required extent, when the labour advanced progressively; the delivery being completed with ease and safety by eight o'clock the following morning. This patient had an exceedingly rapid recovery,—was washing and superintending her ordinary duties on 7th, when her former child was accidentally scalded over several parts of its body by hot water, notwithstanding which, she continued to enjoy good and permanent health.

Several practical inferences, formerly alluded to, seem deducible from the above case,—1st, The immense saving of delay and suffering, as well as waste of strength, laying aside the value of the practitioner's own time, which may, by the judicious employment of energetic measures, be effected to multitudes of parturient females. 2d, The difference discernible between the present and former cases, especially Nos. 1 and 2, with respect to the effect of venesection in promoting dilatation, a circumstance depending wholly on the varied conditions of the os uteri. 3d, That whilst in Case 3, two doses of opium were required before effective action was established, when the os uteri was wholly exempted from the phlogistic state, in the present, the same number only were necessary where it existed in a considerable degree; which is to be ascribed solely to the latter patient being possessed of greater strength of constitution than Mrs M'R. 4th, The superiority of the plan in lingering cases, of having recourse to auxiliary measures, instead of reducing the system below the general standard, by the detraction of large quantities of blood. 5th, The fact, that had not labour immediately taken place, the means resorted to would still have been of avail in facilitating and shortening its progress, when it did approach.

CASE 5.—Mrs B., the wife of a farm-servant, fell in labour on afternoon of 7th October 1834, and was visited by a midwife in the evening, who, according to instructions previously received, bled her on her arrival, or a day or two before.

This individual, who was of healthy and sound constitution, although by no means strong, and rather of sanguineous temperament, had already given birth to four children, and was on the first three of these occasions attended latterly by myself. The first was completed after a considerable interval without artificial assistance. In the second, the degree of maltreatment from neglect of venesection and other measures, was such as to prevent the descent of the head into the pelvis before her strength was exhausted, and consequently to require the delivery to be finished by the destruction of the child. In the third, being called in somewhat earlier, its descent was effected so far as to allow of its extraction by the long forceps, which was performed by a friend of very considerable experience, although too late to save the life of the child.

In the present instance, on account of the symptoms resembling those of her former labours, accompanied, if I mistake not, with discharge of the liquor amnii, I was summoned early in the night. On my arrival, I found uterine action to be extremely severe, and almost unremitting, and was informed it had been so for several hours, in consequence of which her strength seemed wellnigh spent. Upon examination, the aperture was found to present a remarkably thickened, irritable appearance, whilst the

dilatation was only a short way advanced. A full dose of opium in the usual manner, was presently administered ; but so violent and unrelenting was the nature of the pains, that no less than two repetitions were made within an hour and a half, without moderating them in any sensible degree.

The energies of the poor patient, notwithstanding the assistance derived from auxiliary means, seemed so far depressed, as to leave little, if any hope of their restoration ; and so fully was I impressed with this belief, and that, if delivery were not in some way speedily effected, she behoved soon to die, or rupture of the uterus to take place, that I had her placed in the ordinary position for delivery, with the perforators in my hand, ready for the performance of embryulcia. At this critical moment, a slight respite beckoned the approach of a more tranquil nature of things. I immediately paused, reflecting that the life of at least one unoffending fellow-creature was at stake. The intervals grew longer and longer, till at length a state of ease and sleep ensued, which lasted for several hours.

I remained with her a considerable part of the succeeding day, during which the labour made a slow, but certain degree of progress. As night advanced, she had, being naturally lively, brightened up in a manner which her appearance in the morning could not have warranted me to expect. I then left her, under very strict rules of discipline, to the care of the midwife ; and upon my return about 9 A.M. of 9th, received intimation of the progressive advance of the labour through the night, and the safe transit of a lively daughter, about two hours before ; the administration of three separate enemata having been found necessary for the proper regulation of the pains during the preceding twenty-four hours, making in all six, and containing opium, it is believed, fully to the amount of half a drachm. In consequence of proper attention to the bowels and other antiphlogistic means, this patient never complained of sickness or headache, on account of the opium, and had an extremely good recovery.

In endeavouring to arrive at a correct estimate of the above case, a few important particulars obtrude themselves upon our notice. 1st, The degree of excitement, which was much greater than in any of the former ones, and had been preying upon the os uteri through several successive pregnancies. 2d, The fact, that whilst the success which finally marked its issue, was in a great measure owing to early venesection, much of the difficulty experienced in calming and controlling the uterine efforts, originated from undue delay in the exhibition of opium—a considerably larger quantity being on this account, than would otherwise have been, required. 3d, The necessity which exists for the exercise of caution and firmness, in the use of remedies in all difficult and apparently hopeless cases, before having recourse to instruments and operations which endanger or prove destructive to life.

CASE 6.—E. J., a young woman, was seized with pains, resembling those of labour, on evening of 20th December 1844, when a midwife of considerable experience and abilities was called in, who, finding that they were ineffectual in promoting dilatation, which had not then commenced, administered a cathartic and opiate enema, having twice performed venesection on a pretty liberal scale, within the space of a fortnight previous; the blood at both periods being found, upon cooling, to be extremely sizzly and cupped. The effect of the injections was such as to promote ease and occasional intervals of sleep during the night, without any sensible difference in the advance of the labour.

Matters being thus constituted, I received a call to visit her next morning, which I did about 9 o'clock, the distance being about two miles. Upon examination during one of the pains, which had again returned, the os uteri could with difficulty be reached, dilated only so as to admit the tip of the finger. About half an hour from my arrival, the opiate enema was repeated, of about the usual strength, the pains then becoming very frequent. No particular alteration having however been produced by means of it, a repetition became necessary about 11, which preserved her in a composed state throughout the day, but not without occasioning considerable sickness at stomach, and sometimes vomiting.

Upon examination at 5 P.M., a very slight difference only was observable in the size of the orifice; which felt thickened and tender, as well as irregular and jagged in its edges. The effect of the former doses having by this time begun to subside, without bringing about a more favourable nature of pains, which were by this time increasing quickly in number, the enema was again administered, substituting mur. morph. instead of opium. About 9, the dilatation had advanced to the extent of half a crown.

To counteract the subsequent effects of the opium and allay irritation, a cathartic enema was administered with great relief; the patient being more disposed to sleep than during the day, till betwixt 10 and 11, when the pains became again frequent and fatiguing, and the dilatation once more at a full stand.

In consequence of the preceding injection having rendered the rectum somewhat irritable, three grains opium, combined with about one third of mur. morph. was given in form of suppository, after which, the dilatation advanced progressively till 2 o'clock A.M. of 23d, the period at which the membranes were ruptured, when the pains again flagged considerably, without the head having wholly cleared the uterus, the patient seemingly a good deal worn out, and tendency to sleep gone. Under these circumstances, no preferable mode of practice seemed to present itself, than having recourse to the opium once more, with the reflection, that should they not again recur with such power as to complete the delivery, it would promote the advance so far as to permit

the same to be done with greater ease, by means of the forceps. Three-fourths, or perhaps nearly a full grain of morphine was again exhibited by the rectum, in solution, which soon after effected such a degree of regularity and liveliness in the pains, as to terminate the birth of a daughter a little before 4.

This patient had, though comparatively good, a rather tardy recovery, being ten days for the most part confined to bed, on account of general debility.

With regard to the state of her health prior to labour, the following is the history received from her whilst occupied in writing the preceding sketch:—That she was engaged in service, but obliged to relinquish her situation about a month before the expiry of the limited period, or near the conclusion of the seventh month of pregnancy. That during its early stages, (being naturally of a florid excitable habit, and previously affected with spinal irritation), she began to experience many uncomfortable sensations, but since about the period of quickening, had never enjoyed a whole night's rest, on account of lancinating pains in her back and other parts; which continued notwithstanding V.S., till labour took place, and had undermined her strength to such a degree, as to render it difficult for her to walk any distance, or even to remain out of bed. In submitting the case to a more minute and scientific analysis, the following conclusions seem warranted to be drawn:—1st, That it was one in which the phlogistic action had very early supervened, which, in the event of no counteracting measures being employed, had, on account of its severity, settled down upon the os uteri, in such degree, as to cause ulceration, and of consequence, to some extent, adhesion of its edges. 2d, That the labour would have been protracted to much greater length, and most likely come under the second order, but for the previous bleedings by the midwife, which were carried exactly to the proper limits, although as much by chance as otherwise on her part. 3d, That the accouchement might have been even a little farther simplified and shortened, by increasing the strength and lessening the number of the opiate injections—the plan acted upon at the time being considered the most suitable, because the ineffectual pains were in general easily for the moment allayed, and also to diminish the risk arising from its accumulation in the system, she not being able to tolerate them with the same impunity as in the former and other cases. 4th, That the cessation of uterine action upon the rupture of the membranes, until speedily restored by the opium, depended conjointly on debility of the general system and parts connected with the second stage, which, although hitherto unobserved at the commencement of labour, were considerably excited, and had, at the period in question, become much enlarged from œdematous effusion. 5th, That the energetic effect of the opium in this latter stage, goes a considerable way to evince the truth of

the proposition formerly advanced, that it then uniformly accelerates instead of retarding the action of the uterus, when administered agreeably to sound and judicious principles. 6th, The debilitating effect of vascular excitement, which, from its degree of severity and length of duration, compelled this patient to remain for the space of ten days almost closely confined to bed, instead of four or five, the more usual period amongst those of ordinary strength, as No. 4.

CASE 7.—I was summoned on 4th January 1833, to wait upon Mrs G., an extremely delicate and slender proportioned female, who had previously given birth to three children, the preceding accouchement, to be hereafter related, having been more than usually tedious. Though weakly, she had been tolerably free from complaint, till within a few weeks of confinement, when she became rather seriously indisposed—the effect, as she believed, of a fright received, in consequence of a door-neighbour having been suddenly deprived of life, by means of a fall over a precipice—was seized with an excessive discharge of bilious looking matter, both by stool and vomiting, accompanied with severe pain, which baffled every means fully to remove, and producing such a degree of emaciation and weakness, as to compel her constantly to remain in bed, till the period now stated.

Upon my arrival, the distance being seven miles, at 1 o'clock P.M., I found her in charge of a midwife, whom I had intrusted to look after her, and was given to understand that she had been subjected to rather frequent, although irregular attacks of pains during the preceding night and early part of the day. As I surveyed and contemplated the miserable spectacle which she presented, in connection with the circumstances of her former delivery, I almost trembled for the inauspicious consequences which might be in reserve for us both. I resolved, however, to watch the symptoms as they occurred, with a jealous eye. Upon examination, the dilatation seemed scarcely commenced, whilst the pulse, notwithstanding her extreme weakness, was found to be wiry and incompressible, whereupon venesection was performed to the extent, as near as could be judged, of six ounces,—the blood, upon coagulation, being sizzly and loose of texture. It is here worthy of remark, that the excited state of the pulse had arisen only lately before, or coeval with the occurrence of labour—no traces of it being discoverable on my former visit.

The effect of the small evacuation of blood soon became evident in rendering the attacks of pain more regular and easy to endure, whilst, at the same time, they were more concentrated upon the uterus, the orifice of which could now be readily approached, as was suspected, in a very tender, thickened, and everted state, rendering the probability of the contamination of the cervix almost certain.

The bleeding, however, being capable of exerting little farther influence, an opiate enema was by and bye administered, but it was soon ascertained that there would be great difficulty experienced in preventing its speedy return, in consequence of the irritable state of the bowels.

The preservation of notes of the particular operation of the opium exhibited in this case, having been neglected, the following general statement must suffice :—That consecutive to venesection, and during the ensuing night and following morning, four enemata were found requisite (of, it is believed, considerable strength), and but slightly diluted, alternated with a similar number of doses, containing about one grain each, by the mouth ; and which were severally, before great lapse of time, as regularly ejected. Their combined effect, however, was such as to invigorate and sustain the strength of the system, till the resistance proceeding from the excited os and cervix uteri was entirely overcome, when, upon the rupture of the membranes, the external parts presenting but small interruption, the birth of a son, of a very weakly appearance, took place the following day about noon, twenty-three hours from my arrival.

The following inferences, in addition to sundry stated under former cases, seem deducible from the above :—1st, That debility, even in its extreme degree, is very often complicated with vascular excitement—and that the same law of reducing the pulse as near the natural standard as possible, holds equally good amongst females of feeble and delicate constitution, as those in the possession of considerable stamina and muscular energy. 2d, That in the event of venesection effecting little farther impression of a favourable nature, it seldom if ever fails, *when carried to the proper extent*, to regulate and concentrate very distinctly the force of the uterine efforts. 3d, That, as observed at p. 9, a degree of excitement is not unfrequently found affecting the system, upon the accession of labour, which cannot be detected at an earlier period. 4th, That in all cases of interruption to the free progress of labour, whether on the part of the mother or the child, more especially in cases where great delicacy of constitution prevails, the expulsion of the latter, by the unaided efforts, can only be calculated upon with any degree of success when the appropriate measures are resorted to at the commencement, and the strength of the patient preserved unexhausted till the conclusion of the first stage. In the present instance, the belief was, that had not a course of treatment been adopted prior to confinement, the chances of natural delivery would have been but few, as will farther appear from the history of the former labour. 5th, The contrast exhibited betwixt Mrs G. and Case 3, showing, that but for the unyielding state of the os uteri, &c., the delivery would likely have occupied only a few hours.

Cases of Vascular Excitement, accompanied with Irregular Action of the Uterus.

CASE 8.—I was summoned on 18th August 1830, to visit Mrs R., wife of a farmer, from five to six miles distant, well advanced in life, whom I had been called to in July 1828, being her first confinement, and obliged, from rigidity of the os uteri, and maltreatment on the part of the midwife, to deliver by embryulcia.

Upon my arrival, I found her in a very tranquil state, the pains having again subsided. The regular condition of the bowels having been ascertained, the pulse was found to be slightly excited, on account of which she was moderately bled, followed, upon the occurrence of occasional pains, by an opiate enema in the course of the evening, in consequence of which she slept soundly during the ensuing night, it being in some degree uncertain whether labour was about to take place.

Early, however, during the following day, it was ushered in by the usual precursory symptoms ; and, from being at first trivial, and occurring at intervals of considerable length, the pains became gradually more frequent and distressing, their impression on the os uteri, which was very thick and unyielding, being extremely limited and wavering.

Although then but little habituated to the use of opium, the recollection is perfect, that the enema was repeated once, if not again, on account of the irregular and fluctuating nature of the pains towards the middle of the day, or early in the afternoon, on the principle inculcated when a pupil, “ never to give opium by the mouth during the first stage of labour,” but from the doses being too sparing, with the effect rather of aggravating than allaying their urgency and number—at one time exerting a salutary effect upon the orifice, at another, directing their course towards some other quarter ; and to such a height was this desultory warfare carried betwixt 3 and 4 o’clock, that a safe termination of the case was considered almost hopeless.

To save all parties, if possible, the pain attendant on such an interference as the former, I determined to make one effort more. The enema was therefore again repeated, of much greater strength, which completely suspended uterine action for some time, during which the system and uterus having become relaxed and acquired increased strength, and a more favourable nature of pains springing up, the delivery of a daughter was effected about 7.

I have been wont to consider this as the first case in which I stepped beyond the more usual limits in the prescription of opium. The principal circumstances arising from it, worthy of observation, are as follows :—1st, That the irregularity described, depended solely on the resistance given by the unyielding orifice. 2d, That said resisting force was of a complicated nature, originating principally in consequence of the patient’s advanced period of life,

(nearly 40), and partly owing to excitement, aggravated by the imperfect manner of the dilatation at the former delivery. 3d, That in all similar cases it is vain to look for a favourable train of symptoms till the total overthrow of the spasmodic or ineffective action be obtained.

CASE 9.—I received a sudden call on afternoon of 21st April 1837, to visit Mrs C., a handsome young woman lately married, but being out of the way, it was 9 o'clock before I reached her, the distance being six miles, when I found she had been attended by a midwife for the space of twenty-four hours, and also been freely bled by another very talented practitioner, who should have supplanted me on the present occasion, about ten days previous for a pain in her side. Upon examination, she was found to be, although not in an exhausted, yet in a very fatigued and forlorn condition, having enjoyed but few intermissions from pains since labour began. The head had scarcely descended one-third into the pelvis, and the os uteri presented a very thickened, though not particularly irritable appearance, whilst the labii, &c. had become much enlarged from infiltration with serous fluid. The pulse was natural, but weakly. Upon farther inquiry, the information received, was, that the pains, though wellnigh constant, had never risen to any violent height. Dilatation being at a stand, and sleep completely banished, an opiate enema was forthwith prescribed, and after one another, till the spasmodic action became pretty thoroughly subdued, when her situation was rendered much more comfortable, with some desire to sleep. This, however, was greatly checked on account of the irregular action which now began very forcibly to exert itself, requiring for its suppression the occasional repetition of the opiate enema in doses, with the exception of the first and second, not exceeding three and a half and four grains. The account recorded, is, that seven or eight were administered within the space of six hours, viz. from 9 P.M. to 3 A.M. of 22d, the period about which the head, by extremely slow and interrupted advances, had nearly completed its descent into the pelvis; genuine pains having arisen along with the return of the patient's strength, about half-past 11 o'clock.

Every leisure and encouragement was given, in order, if possible, to obviate the necessity for the forceps, but perceiving the pains and strength again gradually to give way about 4, they were soon after introduced, and the birth of a son safely concluded before 5.

In the above history, we witness an instance where the phlogistic action was severe, but had only lately settled down upon the os uteri and external parts (see p. 14), whence it had in a great measure been expelled previous to labour by venesection. The patient's recovery was so good, that she was able to be stirring on

the fifth day. Upon a farther review of this very formidable and instructive case, the following circumstances seem capable of being recognized:—1st, That the greater number of the difficulties with which it was attended, originated in consequence of neglect or non-interference for such a length of time. 2d, That notwithstanding their magnitude and effect in protracting the labour, they would have become still more numerous and untractable, but for the timely and liberal use of the lancet—in fine, that but for the sake of it solely, coupled with the excellency of her constitution and great strength, it would have stood a faint chance of coming under the second order of labour at all; at any rate, consistent with the safety of the foetus. 3d, That had earlier recourse been had to opium, one, or perhaps a repeated dose would have amply sufficed, and the risk of irregular action entirely prevented, it being only called into existence on account of the stimulating or tonic effect of the drug upon a uterus, the energy of which was wellnigh spent, and where it had to encounter afresh the resistance opposed by its unyielding orifice—which, although divested in a great measure of the most prominent characteristics of excitement, was, by means thereof, as well as the degree of debility consequent on a lengthened course of unproductive action, rendered the less capable to perform with ease or uniformity its peculiar function. 4th, That in addition to the causes now specified, the state of the uterus in question was favoured by the comparatively mild nature of the pains, both in the present and former case, corroborating in some degree the truth of the statement advanced at p. 23.

Cases where Parturition was rendered difficult by Rigidity of the Os Uteri and external parts.

CASE 10.—I was waited on by a messenger about the middle of February 1835, towards evening, requesting my attendance upon Mrs M., a closely allied relative, who lived sixteen miles distant, and considered that the period had arrived when she should be confined for the first time. This patient had been married in May 1834, and wanted only a few months of completing her thirty-fourth year.

Upon the completion of our journey about midnight, she was found in charge of a midwife, enjoying considerable tranquillity, having, in the course of the preceding afternoon and evening, experienced occasional moderate attacks of pains, which in general occurred at very irregular intervals. The pulse feeling slightly excited, venesection was forthwith performed, when from ten to twelve ounces blood was taken away,—which, although ejected in a copious stream, manifested but slight traces of fibrine on its surface. Upon examination, the os uteri could be reached with its edges asunder, and greatly enlarged, although seemingly devoid of heat and tenderness on pressure, and presenting a some-

what corrugated appearance. Being speedily convinced, upon a comparison betwixt the state of the os uteri and the trivial nature of the pains, that the labour would be such as to put my patient's strength and patience fully to the trial, it was resolved that the most advisable mode of practice would, as far as possible, be to prevent the energies of the uterus and system from becoming prematurely exhausted.

The bowels having of course been primarily attended to, an opiate enema was next administered, which procured rest during the remainder of the night. As day approached, however, a renewal of hostilities soon commenced—the os uteri being still extremely reluctant to give way, and when in the distended state, presenting the appearance of a cartilagenous ring, or, as Dr Gooch not unaptly expresses it, though referring more especially to cases of extreme excitement (see p. 185), “like an orifice in an inch deal board,” when the repetition of the opium again became indispensable.

The minute history of the progress of this, as it proved, very difficult, but, it is conceived, interesting case, during the early part of the day, it is found impossible to give. Suffice it to state that the pains became extremely frequent, and of course distressing,—their whole force being concentrated over the top of the sacrum—and upon which the repeated administration of opium exerted but slight influence either in diminishing the number or soothing the severity of their attacks; the dilatation advancing by extremely slow and forced degrees. That during the afternoon, the stimulus of the opium previously administered, was such as to augment their frequency and violence to a degree almost unsufferable with the same tardy dilatable effect as before—requiring, in addition to the often repetition of the opium, severe and continued pressure with the flattened palm of the hand over the affected part,—the same, with short intermissions, being found necessary since morning.

By the approach of night, the descent of the head had made considerable progress, but as—notwithstanding the amount of labour and pains bestowed, and she being a well proportioned woman, of strong and healthy constitution—evident tokens of the decline of her strength began to appear, some apprehensions were entertained lest it should not fully occupy the pelvis—when, feeling anxious, if possible, to gain this desired end, by employing gentle pressure against the sluggish spongy texture of the edges, they were, to my no small surprise and joy, observed to retract, leaving the head wholly disengaged. After some pause, perceiving the failure of the pains rapidly advancing, the forceps were introduced, and the safe delivery of a daughter effected about 10 or 11 o'clock—not, however, without great exertion being required, the external parts participating freely in the same rigidity of character.

The subject of this case had a remarkably rapid recovery, being able to leave her bed in a few days. She again conceived, and in two years after, went through the ordeal of child birth in a few hours, attended only by her former midwife; and a third time, in April 1846, after a lapse of more than nine years, with nearly the same celerity, being blooded freely about a fortnight before, which was densely incrustated with fibrine—an accoucheur in the vicinity being in attendance, whose services were not in any way requisite.

Some idea may be formed of the constancy and severity of the pains, and consequently of the magnitude of the resistance opposed to the transit of the foetal head, which was comparatively small, when it is stated that no less than a drachm of opium was required in doses of five and six grains each, during the process—part of them being, it is believed, occasionally returned—for the purpose of restraining their inordinate action, and supplying the necessary degree of stimulus to the system, which otherwise would have soon sunk, the pulse waxing occasionally very quick and feeble; and, in addition to these, almost the whole power her husband, a strong muscular man, and myself, were capable of exerting alternately in making pressure over the sacrum, as already described, during the day, she having scarcely enjoyed a moment's interval of ease, with little inclination to sleep throughout the course of the last 8 or 10 hours. She bore the opium well, not, however, without occasional turns of sickness and vomiting, which rather served to advance than retard the crisis desired, by lessening the risk of headache and allaying other febrile symptoms.

From the hints already given, it will be observed, that this was one of the cases formerly taken notice of, where the stricture was conjointly confined to the cervix uteri. The following inferences receive, if not complete, at least pretty ample confirmation from a review of its history:—1st, That the state of the parts specified, arose more in consequence of the advanced period of the patient's life,* than of vascular excitement, as proved by the nature of the blood, and the absence of heat and tenderness throughout their extent, as well as from the fact hitherto unmentioned, that she enjoyed excellent health with undisturbed nights repose till the period of labour. 2d, That the unusual difficulty experienced in controlling and mitigating the violence of the pains, was owing in a great measure to the stimulus of the opium over a system, which, upon equal grounds, stood in no need of its aid; as also perhaps from the limited and rather awkward situation in which they originally became located, and afterwards

* Although an advanced period of life uniformly acts as the primary cause in the formation of this state of the parts, the evidence derived from observations made in certain well-marked cases, goes to prove, that the tendency is greatly assisted by sedentary or indolent habits; the subject of the present remarks having resided eleven years in town previous to marriage, where her chief employment was needle-work.

remained unchangeably fixed—the opinion entertained at the time, being that, had they been more equally diffused, their influence would have been greater, and the quantity of the drug required proportionably less. 3d, That although repeatedly and carefully performed, counterpressure applied to the edges of the orifice, has never been found of service in advancing their retraction, excepting in cases like the present, where their vitality was impaired to such degree as to prevent its accomplishment by their inherent action. 4th, That no other mode of practice seemed competent to effect the safe termination of the case, (of which for several hours there were entertained considerable fears), save by dividing the stricture—a plan which, under existing circumstances, would have been in some degree difficult and revolting to the feelings, and, it is believed, attended with no lasting benefit, as witnessed in the other at the expiry of two, and again, of nine years. 5th, That in all cases in which the balance of the system is preserved by the timely and judicious use of opium, the recovery of the patient takes place almost as readily in the more difficult form of cases, as those of the simplest kind, in proportion to the respective degrees of stamina and muscular energy possessed by different individuals, as well as their habits of life.

CASE 11.—Mrs M., who had been five years married, and far advanced in life, was seized with symptoms of labour early on the morning of 18th February 1843. This individual, whose accouchement I had engaged to superintend, was a stout, round woman, rather below the ordinary size, with pelvis of ample dimensions.

Being otherwise engaged, a midwife visited her about 11 o'clock A.M., who, finding her annoyed with pains of a fruitless nature, administered an enema containing from three to four grains opium, her bowels having been in a lax state for several days previous. I had visited her repeatedly before, without being able to discover the smallest deviation from a state of perfect health. Upon doing so on the present occasion, about 1 P.M., although the pulse appeared quite natural—feeling interested as to the issue of such an unusual case, and to be satisfied of the validity of the opinions I had formed, dilatation as yet having made no progress,—I immediately bled her to the extent of six or seven ounces, which was not in the least sizy. The effect of the enema given by the midwife beginning to subside, it was again repeated a degree stronger, when at 2 o'clock, the pains became much diminished in frequency and force, dilatation having advanced to the compass of a farthing—the os uteri to the touch feeling loose and flabby, altogether free from tenderness or thickening.

I then left her in charge of the midwife, and, upon my return, at half-past 7, found she had enjoyed ease for two or three

hours ; but the pains again becoming of the teasing fruitless kind, the enema was repeated a third time about 6, which again produced ease and inclination by turns to sleep, till betwixt 9 and 10, when they having waxed very strong and effective, the descent of the head into the pelvis was found about half way completed.

Notwithstanding the favourable state of the os uteri, and the patient's good health and strength, there was a flagging and change in the nature of the pains, after short periods of usefulness, which could not be accounted for on any other principle, than by referring it to the unhabituated use of the organs to the parturient process ; and which, but for its timely suppression by means of the opium, would have rendered it a well-marked case of irregular action, undermining at same time the energies of the system. On these accounts, two additional enemata were required, along with the occasional use of tea and toddy, from the period last stated, till about half-past 2 A.M. of 19th, when the descent of the head into the pelvis was found about half way completed.

The patient's strength continuing unimpaired, several hours were allowed to lapse in the hope that no farther interference would be necessary. Perceiving, however, that no advance was making, the common forceps were applied about 7, in the hope of soon accomplishing a delivery to which I had looked forward with a good deal of interest and anxiety ; but my astonishment may be imagined, when, after employing no small exertion, with intervals, upwards of two hours, I was not able to effect the distention of the perineum in the most trifling degree. Being at length obliged to withdraw them, I had opportunity to examine its condition more freely, when it presented a perfectly callous, gristly appearance, fully half an inch in thickness. This was confirmed by future examinations.

Considering it impossible to finish the process in any other manner than by recourse to embryotomy, and having despatched her husband in quest of these instruments, I allowed my patient to rest during the greater part of the day, closely fomenting the parts. Having brought along with him, in addition to the instruments required, a pair of long forceps, I could scarcely think of condemning the case as wholly hopeless, before giving them a trial, which I accordingly did, perhaps about half the length of the former, but still with the same success, when, finding no alternative remained, I perforated the head without withdrawing the forceps, which, upon the evacuation of a considerable quantity of brain, was easily extracted about 9 o'clock. Although the motion of the child had been distinctly observed after the commencement of labour, the evidences were equally conclusive, that it had ceased to exist for some length of time before its termination ; the pulsation of the meningeal and other arteries being incapable of being felt when the skull was perforated, and the cuticle in, seve-

ral patches having assumed a livid hue. Upon the removal of the secundines, the placenta was found in a half putrid state. This patient, as may well be anticipated, had an extremely tedious, slow recovery—fever and inflammation of the parts soon supervened, followed by ulceration and purulent discharge. Every precaution was employed with the view to prevent adhesion of the vaginal canal, but in vain, so that it eventually became occluded.

A good state of health, however, was ultimately regained, and continues to be enjoyed, so far as I am aware, to the present hour, without any future return of the menses—she having almost completed, by the information received from her friends, her forty-seventh year about the period in question.

The two preceding cases afford the most striking examples of rigidity consequent upon advanced life, which I have hitherto witnessed—differing widely, more especially the latter, in its most essential characteristics from inflammatory action, and demanding the most scrupulous watchfulness wherever the existence of the same may be suspected.

The inferences deducible from them conjointly, are—that, like phlogosis, it sometimes affects more prominently the internal, and sometimes the external parts, but is quite destitute of the debilitating effect attendant upon the former prior to confinement, and, cannot like it, be detected beforehand; but seems, for the most part, to be earlier gendered amongst those of sedentary and inactive habits. From the latter we learn, 1st, That it may occasionally acquire such a height of maturity with the lapse of years, as to baffle the power of medicine and mechanical force to overcome. 2d, That under the circumstances described, the liberty taken with the forceps was quite unwarrantable—such as tended greatly to endanger life, and would have given rise to still more serious consequences had menstruation ever recurred. 3d, That had I been exercised in the use of the stethoscope, I might have divested myself of much labour and anxiety, together with the train of injuries inflicted upon my hapless patient. 4th, That the practitioner should rarely, if ever, venture to form, or give a decided opinion as to the issue of any case, until the same be ascertained by ocular or other positive demonstration.

Cases where Labour was protracted by great weakness, accompanied with premature Rupture of the Membranes, Projection of the Sacrum, &c.

CASE 12.—I received a call on forenoon of 9th July 1844, to visit E. J., a young unmarried woman, upwards of three miles distant, and of whom I had no previous acquaintance. Upon reaching her father's house about 1 P.M., the following is the history received:—That whilst walking through the house on afternoon of 6th, the membranes suddenly and unexpectedly gave way, when a large flow of liquor amnii took place, but, that, hav-

ing no pains at the time, or during the ensuing night, a midwife was not called in until next morning, and who did not arrive before 11 o'clock, and soon after took from her arm about a soup plate full of blood, without any effect in improving the nature of the pains, which were described as extremely trifling, and had continued so till the period of my visit—the midwife having likewise administered two opiate enemata, the first on the 8th, and the second a few hours before I arrived, seemingly with the same success as the venesection.

The appearance of my patient—she being about the middle size, of rather slender form, with a constitution naturally delicate, viewed in connection with the early rupture of the membranes, which I had every reason to believe was genuine, and the length of time which had since elapsed, together with a state of the pulse which betokened great weakness—was such, as to elate me with no very flattering hopes of a speedy and safe termination to the delivery; more especially when, upon the introduction of the finger, I was unable, from the absence of pains, along with an irritable state of the external parts, to examine correctly the os uteri, which was supposed to be dilated to the size of about half-a-crown. Under these circumstances, coupled with the fact, that she had enjoyed but few intervals of sleep, two drachms tincture of opium were ordered as enema, which calmed the system till about half-past 5, when the pains becoming again teasing, four grains opium in solution were similarly administered, which threw her into a state of tranquillity and exemption from pains during the night, but with little disposition to sleep. The pains recurring about 7 A.M. of 10th, and there being likewise considerable heat of surface, along with other antiphlogistic measures, a cathartic enema was ordered with much relief, and on account the effect of the pains was still such, as to have exerted but a very trifling difference on the os uteri, the opium was repeated soon after, as on the preceding afternoon, which had the effect of restoring the tone of the system in such degree, as that by 2 P.M. the head had made considerable advance within the pelvis. About 5, the pains again becoming distressing and ineffectual, the enema was once more repeated of encreased strength, which threw her into a state of ease and sleep throughout the greater part of the night, except what uneasiness arose from an ineffectual attempt to void her urine, requiring the introduction of the catheter about 1 A.M. of 11th, when the head having cleared the uterus at 6, and her strength, and consequently the pains being likely soon to become exhausted, the forceps were introduced about 7, and the delivery of a fine lively girl completed by 8—thus terminating a labour on the morning of the sixth day from its commencement, or more correctly speaking, dating from the rupture of the membranes about 4 P.M., one hundred and twelve hours from that event till the birth of the child.

To the preceding sketch taken at the bedside, it is necessary to state, in order to complete the history of the case, that to her natural delicacy of constitution, is to be added the circumstance, that since her return to her father's house, several months previous to confinement, she had kept herself closely secluded from the gaze of her acquaintances; seldom if ever inhaling the fragrancy of the air. That upon inquiry, the midwife and attendants confirmed an opinion I had been led to form, that the blood removed was of the natural appearance, without the smallest streak of fibrine intermixed, proving indisputably that to the evacuation of so great a quantity of the vital mass from a system already too much enervated by other causes, was to be attributed in a great measure the very extraordinary length of the accouchement; the os uteri being quite exempt from excitement, whilst that affecting the external parts, and also the vaginal canal, could well be accounted for from the constant dribbling away of the liquor amnii, of which there had been a very abundant collection. That independent of these causes, there was wellnigh conclusive evidence, from no movement having been discovered since the commencement of labour, and also a very strong fœtor whenever the bed-clothes were uplifted, that the life of the child was extinct, or at any rate in a very weakly condition. Having, however, at the outset been pretty firmly grounded in the opinion, that the difficulties of the case were capable of being surmounted through the agency of time and opium, I resolved upon persevering, so long as the most distant prospect remained,—notwithstanding that several goodly matrons, on the evening of the 10th, seemed ready to rise in arms at the idea of so unprecedented and unwarranted a delay, one of whom left the house on the following morning as if in dudgeon when she beheld the placid countenance of the babe.

From the history thus furnished, it may be easily conceived, that this patient's recovery was not of the most rapid kind. She was during the first two weeks almost wholly confined to bed, having, in consequence of her extreme weakness, become affected with a hectic cough and night sweating, which happily yielded to a course of quinine and sulphuric acid; her convalescence ultimately proving so favourable as to enable her to undertake the lactation of her child, and, though still delicate, has since enjoyed permanent health.

In briefly reviewing the above case, the following circumstances stand deserving of particular notice:—1st, That the early rupture of the membranes arose from a cause not easily accounted for. 2d, That the effect of such an event in retarding the progress of the labour, if any, was extremely small—the chief cause of delay being a lethargic state of the uterus and system generally, arising from great weakness produced in a great measure by too rigorous confinement and mental anxiety. 3d, That, notwithstanding her

case originally promised nothing but delay and difficulty in its steps on account of the causes enumerated, the amount of these was greatly increased by means of the free evacuation of blood so injudiciously abstracted by the midwife. 4th, That in the absence of all motion, the symptoms of the death of the fœtus, with the exception of stethoscopic investigation which can be calculated upon are extremely few. 5th, That in the present instance, they were deemed such as almost at any time to justify the performance of embryulcia, but for the resolution made at first visit to test a little minutely the virtues of opium. 6th, The progressive degree wherein both the soothing* and stimulating effects of the opium were witnessed, but which proved ineffectual in accomplishing the latter to the extent demanded, till the uterine efforts were for a considerable time wholly suspended, and the patient thrown into a profound sleep.

CASE 13.—K. G., an elderly unmarried female, who had on account of family disarrangements come from a considerable distance for the purpose of being confined, was placed under my care about 20th January 1846. She was rather tall and slender proportioned, but, upon the whole, had enjoyed particular good health since conception took place. Upon examination, the pulse was slightly incompressible, on which account, about eight ounces blood, which upon cooling was interspersed with several streaks of fibrine, was taken away a few days after her arrival.

She continued in her usual way, having recourse occasionally to the colocynth pill, till 9 A.M. of 2d February, when the membranes suddenly gave way. Being naturally of a reserved disposition, and amongst strangers, she gave no intimation of this till the day was far advanced. Upon being made acquainted with the circumstance, and instituting an examination, the os uteri was found slightly opened, and at same time free from tenderness and thickening, with now and then trifling attacks of pains, for the suppression of which an opiate enema was ordered, which procured her ease and sleep throughout the night. Her strength, with the return of morning, being considerably recruited, a recurrence of pains also took place, exerting so far a beneficial effect, until such time as the natural powers began again to flag, when they relapsed into the fruitless fatiguing kind, rendering the repetition of the enema necessary, but at what particular hour cannot be recollected, with the same effects as the former, till towards evening, when the action of the uterus became such as to effect the descent of the head into the pelvis before midnight,

* It was gratifying to witness the manner in which the irritable state of the parts became lessened with the advance of labour in the present instance—an effect which is always uniform when opium is exhibited agreeably to the rules formerly laid down, although the contrary seems to be the opinion generally entertained by practical writers.

and then gradually to subside, on account of which the forceps were sometime after introduced and the delivery of a very weakly female child terminated about 1 A.M. of 4th, forty hours from the rupture of the membranes. Upon the secundines being removed, the placenta was found to be easily torn into shreds, emitting a very offensive odour.

This individual had an extremely rapid recovery, so much so, as to be able to be removed, though contrary to my express orders, on an open cart, partly loaded, early on the morning of the 10th day, a distance of 9 miles, and afterwards walking other 5 or 6 with her child in her arms, the weather being at same time very disagreeable, without sustaining the smallest injury, as was proved by her return a few weeks after in perfect health.

Her age, which she seemed unwilling to disclose, from the most authentic sources, exceeded forty by perhaps two or three years. The perineum was quite free from induration or thickening, she having spent the greater part of her life as housekeeper at farming establishments.

The leading inferences arising out of the case may be stated as follows :—1st, That, like the preceding, it was attended with premature rupture of the membranes—the patient's strength having become reduced, not so much on account of her advanced period of life, and the mental anxiety she had undergone, as from another cause, to be afterwards more particularly alluded to. 2d, That, in addition to its debilitating effect, the cause in question possessed much greater influence in retarding the labour than the premature discharge of the liquor amnii, or any other. 3d, That had venesection, in this patient, been carried farther than to relieve the congestive symptoms, the accouchement would have suffered a still farther protraction, viz. in a ratio proportioned to the degree in which the system was reduced below the equilibrium. 4th, That the delay and difficulties experienced in cases complicated with premature rupture of the membranes, in which the lancet has been too liberally employed, have, it is confidently believed, been too frequently ascribed to that accident, when they were referrible in a great measure to the operation undertaken for their cure. 5th, The fact that when the balance of the system has been properly preserved, the rapidity and effective manner in which convalescence takes place, is truly surprising, as exemplified in the history of this patient. 6th, The fact also displayed that the degree of rigidity is by no means uniform with the advance, but to a certain extent at least, influenced by the habits of life, —These are the cases referred to at p. 25.

CASE 14.—I was requested, about 9 P.M. 6th March 1839, to visit J. R., an unmarried female, who had come from a neighbouring town for the purpose of in-lying with some friends, and who,

as the messenger informed me, had been already twenty-four hours under the care of a midwife. I accordingly went, and immediately recognised a diminutive, rotund figure, whom I had observed on her arrival amongst us a few days before.

The account received from the midwife—a shrewd and intelligent woman—was, that she felt assured the case was one of deformity or some unusual enlargement of such size as completely to obstruct the descent of the head, although the os uteri was well dilated, and the pains, with few intervals, had been strong and regular ever since she was called in. That, considering her, on account of her meagre and enfeebled appearance, an improper subject for venesection, she administered a cathartic and one or two opiate clysters, during her attendance, which had calmed the severity of the pains for several hours, but that these having again returned, with redoubled strength, she declined farther interference, and expressed a wish for additional advice. Upon examination, I found the preceding account to be fully borne out, and could, with the utmost ease, trace the promontory of the sacrum projecting considerably forwards, and the head of the child, not however without greater difficulty, resting wholly above the brim of the pelvis.

Although, having never met with cases of deformity to any extent before, I immediately set down the present as one in which little choice of plans of delivery was likely to be had; but in order to replenish the strength of my almost exhausted patient, and gain time for reflection, I ordered a repetition of the opiate enema, which most probably had a transient effect in again soothing the pains, without producing any other change.

Feeling still the utmost aversion, after a lapse of several hours, to sacrifice the child—of the death of which there was no certain evidence—I resolved as a last resource—uterine action having again become urgent—to repeat the opium in a more ample dose. This having been done, its effect was such as for some time to induce a state of ease greater than the former, but with little if any inclination to sleep, and, in course, a still more vigorous description of labour throes, with results only similar to the former. Finding it impossible to procure sleep, and despairing at length of any favourable change being wrought, as well as fearing lest rupture of the uterus or some other untoward occurrence should take place, I had gone to the bedside for the purpose of laying my patient in a position for delivery; and when in the act of making an examination for what I had agreed upon as the last time, the introduction of my finger was scarcely effected, when, to my inexpressible surprise and joy, the head made a simultaneous descent from its former location into the hollow of the sacrum, and was soon after (about half-past 2 A.M. of 7th) liberated without farther difficulty, the child being of the masculine gender, extremely lively, and perhaps rather below the average size,

which contributed in some degree towards the successful issue, and who, along with his mother, continued to do well, and is at present a neat thriving boy.

She having never again left this district, the following is the history recently received :—That she has been affected as described since the first year of her age, having become rickety about that period—that though delicate through life, her health during pregnancy had been upon the whole good, being at the period of confinement in her thirty-sixth year.

What the amount of the deformity, or, in other terms, what might have or may still be the exact measurement betwixt the arch of the pubis and top of the sacrum, the enquiry being totally neglected at the period of labour, I feel unable to give any decisive estimate, although the circumstances of the case clearly proved the deviation from the true standard to be very considerable.

Amongst others, the following inferences stand prominently conspicuous:—1st, That the favourable issue of the accouchement was solely owing to the diffusive stimulating or rather tonic power of the opium—a power which was able to subdue the resistance arising from a diminution of space, of many years' duration, and requiring only, it is presumed, to have been brought more early into action to have effected this much sooner than it did. 2d, That in the absence of the resistance specified, the labour would have proved of a very simple kind—there being also an exemption from the congestive and rigid states of the system and generative organs, in consequence of which the balance betwixt them was fully maintained. 3d, That whilst the congestive tendency, as well as that of rigidity, was impaired on account of the cachectic condition of the constitution generally, the latter was still farther lessened by the active habits of service in which she had been engaged for many years. 4th, That the difficulty of composing her to sleep seemed to arise from the equable and relaxed state of the system, which, under ordinary circumstances, stood but little in need of extraneous aid, as CASE 10.

CASE 15.—I was summoned early on forenoon of 22d March 1846, to wait upon Mrs H., the wife of a farmer, about five miles distant, in labour for the eighth time, and whom I had attended successively during the last five.

In consequence of being of a rather sanguine excitable habit, the first of these were a good deal distressing and difficult to manage, but had by attention become latterly so tractable as to be got over in a few hours. On the present occasion, she had been blooded freely a few weeks before, and was considered to be every way prepared for the event in question.

Upon arrival, I found her in bed, having, as she informed me, been much annoyed with pains during the morning, which, however, upon examination, had effected but little, although the os uteri was in a very dilatable state. Under these circumstances, and

she seeming slightly fatigued, an opiate enema was without delay ordered, which, in the course of some time, appeared to concentrate and enliven considerably the force of the pains. Upon a re-examination, my surprise may be partly judged of, when, instead of the incompressible scalp, I got hold of a portion of the funis, pulsating strongly through the membranes, which, upon repeated attempts, it was not possible to replace. Upon a request being made to have a supply of warm water in readiness,—the expectation seemed to prevail that the delivery was nigh completed,—an impression which I considered it necessary to subvert, by explaining to one of the most confidential of the attendants something of the nature of the case, and my fears respecting its issue.

The labour went on for some time regularly, but slowly, and had nothing unusual occurred, there was every prospect that farther interference would have been unnecessary. Being assured, however, that if its progress could not be accelerated by the time the first stage was over, the loss of the child was inevitable, and understanding well the *trim* of my patient, I resolved upon trying the effect of a doze considerably stronger than the former. Upon this being done, no material difference for a short time was discernible, but so great was in course the change, that the head was forcibly projected into the pelvis, whilst the membranes and cord interposed were almost ready to protrude. The discharge of the liquor amnii soon after taking place, without the action of the uterus being sensibly diminished, the head, with the funis still pulsating feebly, was in course also expelled, when the child showed signs of life, if I mistake not, even before the delivery of the body, but which again very speedily disappeared, and were only eventually restored by immersion in warm water and other means: the whole being completed within two hours and a half subsequent to my arrival.

Upon a retrospective view of its history, the leading characteristic appears to be, that nothing save the speedy extrication of the child, as soon as its head became located in the pelvis, could possibly have preserved its life; of which, it must be confessed, even after the second dose of the opium had commenced its operation, the hopes entertained were far from sanguine. That to the power exercised by it, under circumstances which cannot always be obtained, seems due all the merit of hastening the longed-for crisis, no doubt can remain, although accomplished more by way of constraint than the result of gentle measures.

The case is not related on account of debility on the part of the mother, but of the incident with which it was connected, and seems well calculated to point out the value of such inferences as the following:—1st, That in every case it is the duty of the practitioner to have his patient as well prepared beforehand as possible for the parturient process, and to examine early into the nature of the presentation and other circumstances, when it does

occur, seeing that it is only by means of attention to these particulars previous to, and during the first stage, that he can ever expect to encounter successfully in any emergency like that now recorded. 2d, That in all cases, more especially those where the life of the child is peculiarly endangered, he ought to have the means of resuscitation ready at hand before delivery takes place, it being a well authenticated fact, that to the neglect of this precaution, many lives, which might otherwise be saved, are constantly falling victims.

Cases of an unusually Aggravated Nature, Depending chiefly on an Excited State of the Cervix Uteri.

CASE 16.—I was summoned on evening of 14th August 1831, to attend Mrs G., the history of whose succeeding confinement it has already been related at p. 63, and with whom I had formerly been on terms of acquaintanceship. On my arrival at 11 P.M., I was given to understand that she had been twenty-four hours under the care of a midwife, having experienced frequent slight attacks of pains during this period, but which had again wellnigh ceased. The record preserved, states, that she was gently blooded, and soon after received an opiate enema, which threw her into a state of rest and sleep throughout the night and a considerable part of the following day, with a complete cessation of uterine action.

Upon examination, both after my arrival, and ensuing morning, the impression conveyed was, that the os uteri was a good way dilated, and so far was I convinced of the favourable nature of the case, that I had proposed taking my leave about 10 A.M.; but being unable to obtain her assent, and the distance great (7 miles), I the more readily consented to stay. As before stated, there was nothing but quietness during the day, but with the approach of night, uterine action also commenced, and in course became as severe as her feeble frame could well sustain; still tending to strengthen the favourable opinion formerly entertained. How great then was my astonishment and dismay, when instead of the head enveloped in the membranes, I found upon re-examination, that I had hitherto been exerting pressure against the parietes of the uterus, the orifice of which was now only capable of being reached, dilated so as to admit the tip of the finger, and much thickened. How to act, I scarcely knew, being well assured that my patient's strength, which was recruited to the maximum, would not long stand out. In order to protract it to the utmost, the opium, with the aid of cordials, was once more had recourse to, by means of which it was kept up, and also the force of the pains, till towards midnight, when it became evident that its decline was fast advancing without the smallest favourable change on the uterine aperture—rendering the fact certain, that the delivery would never fall under the first or second orders, and limiting the choice betwixt embryotomy and turning.

After some time spent in reflection, I decided, from motives calculated to effect less the feelings of the mother, &c., in favour of the latter, although never having gone through the operation before. Having placed her in the usual position, I forthwith commenced by the insertion of one finger, then another, and so on—my difficulties only commencing, on account of the restricted dimensions of the pelvis, with the introduction of the thumb, and remaining part of the hand, which became so thoroughly cramped and paralyzed, as to render it almost incapable of farther use. I had, however, advanced too far to retract—so that by slow and persevering efforts, I was at length happily successful, but not without inflicting upon my poor patient much more pain than I ought to have done.

Being enabled to reach and lay hold of the feet one by one, and bring them down, the delivery was then gradually accomplished after a hard hour's exercise, about 1 A.M. of 16th, the child of course still-born. The convalescence of the mother, though tardy, was on the whole good; she becoming again pregnant as already described.

In directing attention to the circumstances of the above case, the inquiry naturally arises, to what cause is to be ascribed the disorganization of structure of the uterine aperture, so as completely to unfit it for the process of dilatation?

That such an incident could not have arisen from either a state of agglutination of its edges, or rigidity from advanced life, is certain,—an opening having been effected sufficient to admit the finger, and then the hand, and she having already given birth to two children, and being only about thirty years of age. The only satisfactory explanation is, that it originated solely as the result of congestive action, in a constitution naturally delicate, having existed throughout, and tended greatly to augment the difficulties of the two former accouchments; and in the present instance occurred so early, and in such degree as to confine her for the most part to bed for two months preceding labour; having, during that period, through the medium of its various unrestrained enervating influences, effected a great reduction in her strength. Upon an impartial survey and comparison of its appearance with that witnessed at the succeeding delivery, little doubt can be entertained that the stricture was in the cervix; a situation still more adverse to expeditious and easy dilatation.

The impressions formed when it happened, were decisive as to the fact, that no difference in the effects would have been obtained from a more early attendance, unless she had been subjected to a course of treatment, as in the instance alluded to, and serves to explain the cause of anxiety respecting her on that occasion. The following is of a more encouraging kind:—

CASE 17.—I was summoned on afternoon of 24th July 1833,

to visit Mrs W., living in her father's house, about seven miles distant, who had already given birth to three children, and whom I had delivered of the first of these in January 1826, by the forceps.

I arrived at 6 o'clock, and found her in a lingering inactive state,—the precursory symptoms of labour having only made their appearance; a midwife being in attendance since the preceding evening.

Finding she stood in need of rest, an opiate enema was prescribed which procured sleep throughout the night. In the morning no improvement was found to have taken place; the os uteri being with difficulty reached, on which account, the opium, it is believed, was again repeated, she having relapsed into a state of sleep, out of which she only awoke betwixt 11 and 12, with her strength much recruited; uterine action likewise soon after commenced, and for a short time continued lively and regular, when, as if by magical effect, it attained suddenly such a degree of violence and frequency, as to surpass that of all other cases I had ever witnessed, and calculated to convey the impression that the termination of the delivery could be at no great distance.

My astonishment, however, was by no means small, when, upon examination, the os uteri could scarcely be reached with the same ease as in Mrs G., on account of its being greatly retracted, and the patient a much taller woman. Upon a more minute examination, its edges were found thickened and corrugated in a degree equal, if not greater, than in any instance I had before or since met with, circumstances which, though in general ominous of difficulty and delay, were considered at present incapable to withstand such a pressure of propulsive power. In this opinion, however, I was greatly deceived; for notwithstanding that the pains became, if possible, still stronger and unremitting, the state of the os uteri was not in the smallest degree altered. The exhibition of opium was had recourse to in repeated doses, but still with rather an aggravated than an opposite effect. Matters at length arose to such a pitch that the situation of my patient became almost deplorable; her cries and entreaties being of the most heart-rending kind, whilst her parents stood confounded, literally bathed in tears; the attendants also and midwife being frightened above measure.

From two to three hours having elapsed in the manner described, it became certain, that, if not prevented by delivery, rupture of the uterus, or such like, behoved of necessity to ensue. Circumstances being briefly considered, the process of turning seemed to point itself out as much more eligible, on account of the more capacious size of the pelvis, and other reasons, than in the case of Mrs G., and was instantly had recourse to, and completed after a strictly similar manner in the space of ten or twelve minutes; the anguish of all present being fully appeased at the unexpected

appearance of a strong and lively son about 3 P.M. Her recovery upon the whole was good, though rather slow, requiring to be assisted by a course of tonics.

On account of the comparative diameters of the pelvis, and the incessant and violent action of the uterus, the operation was a contrast the very opposite to that in Mrs G. I have never since performed it with half the ease.

When it is understood that this individual was of an extremely nervous habit, that her former deliveries were uniformly tedious and lingering, and the state of her health in the present instance of the very worst description for several months previous to confinement, (which was the cause of her being revoved from her own to her father's house,) on account, there is every reason to believe, of phlogistic action having settled down upon the os, but more especially the cervix uteri, and which, as in Mrs G's. case, had gone the round of several preceding pregnancies, with the debilitating effect consequent thereon, the wonder excited at the unusual circumstances attending the delivery will in a great measure cease.

Their principal source, however, it is conceived, is to be sought for in the complication of the cervix, as will more fully appear from the history of the two following cases.*

CASE 18.—I was requested, on 13th April 1840, to visit Mrs M., the wife of a farmer, upwards of five miles distant, who had enjoyed a very poor state of health, with nocturnal pains for some length of time, and supposed herself drawing near the period of her third confinement.

When I arrived, about 4 P.M., the account received from her mother and matrons assembled was, that the number and strength of the pains had been such, through the early part of the day, as to induce them to believe that the delivery was nigh at hand,—an opinion at which, upon observing for a short time their regularity and effect upon my patient, I did not much surprise. This, however, not being corroborated by examination, and the pulse feeling excited and wiry, venesection was immediately performed—to what extent is not now recollected—without any alteration or improvement on the pains. It being impossible to decide whether labour was about to occur or not, an opiate enema was administered at half-past 5,—she standing much in need of ease and rest. So terrible, however, was their violence and frequency, that no less than three repetitions were required before any thing like tranquillity could be restored, viz., the 1st at six, 2d half-past

* These were not originally intended to be published, but upon subsequent thoughts, some advantage it is supposed may be derived from doing so, in illustrating still farther the condition above referred to, as well as in exemplifying more fully the varied aspects under which phlogistic action, in its more aggravated form, sometimes exhibits itself.

eight, and 3d about midnight, containing, in whole, opium to the amount of twenty-five grains, when she slept tolerably well till towards morning.

From the different examinations instituted, the conclusion arrived at was, that labour had not as yet commenced, but might be expected to do so soon. With this impression I left her at seven o'clock in charge of her mother,—a woman every way qualified for the task,—with a promise to return during the afternoon. Upon the fulfilment of this, finding she still enjoyed a release from suffering, I again retraced my steps home. On the 15th, the pains had recurred in such degree as to compel me to remain with her during the night, and to require the administration of two enemata before they could again be allayed. It is at this period recorded—"no dilatation of the os uteri, which can only with considerable difficulty be reached; patient for the most part confined to bed." In consequence of the aggravated appearance of the case, I visited her again on the afternoon of 16th, and stayed throughout the night, which she passed in considerable ease, and also the morning of the 17th, when I once more bade her adieu. About 11 A.M., however, she again on a sudden became severely ill, upon which a messenger was instantly dispatched, no doubt being entertained but labour was now commenced in good earnest. Being unavoidably out of the way when he arrived, a lapse of from four to five hours occurred before I could again reach her, by which time, the effect most probably of some opium which had been left, she was become greatly tranquillized, whereas the least I had expected was to have been greeted with a view of the babe in its swaddling bands.

At this visit, which was lengthened throughout another night, five additional doses of opium P. enem. are recorded as being delivered for exhibition, some of which she no doubt soon received, the rest being left in reserve for similar attacks,—it being quite evident that no *real* symptoms of labour had as yet appeared, and also that no other mode of practice seemed worthy of attention which had not for its object the entire destruction of these distressing pains.

During the preceding period, the state of the bowels having been regulated by clysters and castor oil, the colocynth pill was now substituted, the attacks having begun gradually to subside since last visit, viz. (18th), and a state of convalescence in like ratio to ensue, so that by the 29th she was found superintending her household affairs, and smiling at the recollection of having parturition yet in prospect, to amuse her some future day.

On 6th May, as I visited the house on account of the illness of a servant, she was still lively and walking about; but upon my return the following afternoon, such a change had taken place as clearly indicated the long-looked-for crisis to be now at hand. Having another engagement, I once more left her, and again re-

turned before nine o'clock, when a still greater difference was discernible; the os uteri could then be reached dilated to the size of a halfpenny, much thickened and protruding, as well as serrated in its edges, and tender to the touch. The vagina also participated in the phlogistic state, whilst the external parts were enlarged from œdematous effusion; circumstances which, in connection with her delicacy and reduced strength, plainly demonstrated her situation such as to require to be still closely watched.

Suffice it to say that, in order to control and regulate the force of the pains, the use of opium, in some two or three doses, was again found indispensable, by means of which the full descent of the head was effected soon after midnight, requiring to be cleared of the uterus, as in Case 10, and expected to have been ultimately expelled by the natural efforts. In this, however, I was disappointed on account of the decline of her strength and pains, which soon commenced, rendering the aid of the forceps necessary, which I had fortunately left in the house upon my first visit. The birth of a strong lively son was at length accomplished about 2 A.M. of 8th; the recovery and future health of the mother being extremely good.

Throughout the course of her succeeding pregnancy she was wholly free from every complaint, and when labour took place, which chanced to be in the midst of very tempestuous weather, it was concluded almost before her friends and neighbours had time to assemble. The quantity of opium employed, I find, was estimated at one drachm and a half.

To complete the history of this patient, the following facts require to be told:—That the state of her health throughout the greater part of her two former pregnancies had been extremely similar to the present, although the pains had never arisen to any such height—she being attended, if not previous to, during both her confinements by a practitioner in her immediate neighbourhood, who had employed few, if any remedies, for the relief of her complaints; but was enabled, though not without difficulty, to finish the delivery in both instances by the forceps; and that so long as the periods of lactation continued, she had very frequently been distressed with weid—an affection which never fails greatly to reduce the strength, and add to the amount of any congestive process already formed. When these are reviewed in connection with the patient's being naturally of an excitable sanguineous temperament, and in the prime of youth, the circumstances above related will admit of a much more ready explanation than they otherwise might. What would have proved the result of such a state unremedied upon the approach of labour, may in some degree be conjectured from the relation of the following:—

CASE 19.—I was called upon, a little before midnight, of 3d

January 1843, to visit Mrs S., wife of a farmer about four miles distant, (of whom I had no previous acquaintance, or received any intimation), a young woman reported to be in labour for the first time. Upon my arrival at 1 A.M. of 4th, I found her seated by the fire; her general appearance being such as to denote health and muscular energy.

Upon more minute enquiry, however, I was informed that the state of her health during pregnancy had been extremely bad; so much so, that since about the period of quickening, she had scarcely enjoyed a whole night's rest, and many none at all, on account of lancinating pains: but being unacquainted, and imagining that such behoved to be so, had never made any application for relief. That latterly her complaints had increased to such degree as to render it difficult for her to walk about, or even remain out of bed.

The pulse feeling excited and wiry, about twelve ounces of blood, which was very sily on cooling, had only been taken away when such a reduction of its strength took place, as to compel me presently to untie the ligature; pains from commencement of change been moderate, with long intervals; since venesection have become more distinct and easier during their intermissions; os uteri could not be properly reached. It being as yet uncertain whether or not she was actually in labour, and the pains now and then recurring, six grains of opium were administered in form of suppository, betwixt 4 and 5 o'clock, without producing much effect, so that by 11, when they had become more teasing and irregular, a similar quantity was given in solution P. enema, after which an improvement took place; the os uteri being now supposed to be felt a little open. Slept for the most part betwixt the pains till about 1 A.M. of 5th, when feeling restless and uncomfortable, and the bowels not having been opened for sometime, a cathartic clyster was ordered, which operated freely, giving great relief. At 7 A.M., in consequence of slight exhaustion, from the frequency of the pains and want of sleep since about 4, the opiate enema was repeated, which threw her into a state of comparative ease during the day. At 8 P.M., upon examination, os uteri supposed dilated to the size of half a crown; pains in general recurring at intervals of 10 minutes, little inclination to sleep. Early on 6th it was found necessary to repeat the opium, when she slept with nearly a total cessation of pains, till 6 A.M.

During the 1st day, as formerly stated, doubts were entertained as to the reality of labour. Upon the 5th, although the discharge from the uterus, which had freely taken place, and other symptoms were considered sufficient evidence in its favour, the degree of dilatation discovered, was of course finally decisive.

The surprise and disappointment therefore experienced may be partly guessed, when at 7 A.M. of 6th, being resolved upon instituting a free examination, it was not without exerting considerable

force, that I found I could reach the orifice opened, as in Mrs G's case, only to admit the tip of the finger; but exhibiting a much thicker gristly appearance than in her's, or any other, if I mistake not, I had almost ever met with before.

Upon ascertaining the real state of matters, I was well nigh non-plussed as to the course I should best pursue, and had even thought of placing my patient in a position for delivery, and operating as in cases 16 and 17. After farther reflection, however, I shrunk from the undertaking, considering that although the dimensions of the pelvis were at any rate equal to the last of these, there would not be the smallest chance of saving the child, from the insignificance of the uterine action; but resolved, although well aware of the inadequacy of my patient's strength to the task, with the aid of opium and attention, to run all hazards for once.

With these remarks I again proceed. Pains continued moderate till 10, when becoming troublesome and fatiguing, the opium was repeated in a rather larger dose; os uteri the same as at last report; a good deal of pain experienced upon the introduction of the finger; pains almost subsided till 4 P.M., when, to relieve irritation, the cathartic enema was repeated, which operated freely; pains soon after becoming very constant and distressing, and the strength likely to decline, the opiate enema was repeated at 7, which created a desire for stool, in consequence of the irritable state of the rectum since last stimulating clyster, and also a continuation of the pains, instead of allaying them as did all the former, and was after 20 minutes evacuated; os uteri still continues as before, but seemingly a little more disposed to yield. At 8 P.M., an opiate suppository was exhibited in consequence of the enema being expelled; pains upon the whole rather frequent and teasing; pulse, from having hitherto been rather full and strong, now become quickened and reduced. About 9, pains become more tractable and regular in their occurrence, and continued in much the same state till a quarter past 11,—the suppository being then repeated. Has slept during the intervals till 1 A.M., of 7th, and occasionally till 5; pains about this time become trivial and fatiguing. At 7 A.M., in consequence of considerable heat of surface, a cathartic enema of weak strength was again repeated with a favourable effect, and afterwards a strong opiate one—and two suppositories, which were successively ejected.

My supply of opium was wholly exhausted, notwithstanding which, the pains stood out pretty well till 11, with intervals of only a few minutes. Throughout the whole course of the labour, she required firm pressure to be made with the flattened palm of the hand during each successive pain. Since about 9 A.M., to its conclusion, I was obliged to remain constantly by the bedside, and to employ the utmost degree of force almost I was capable of exerting with the hand, thus applied over the lumbar vertebræ.

Previous to midnight no alteration could be detected in the state of the os uteri, different from last report, since then, however, to the present hour, (11 A.M.,) it has dilated to the extent of half a crown, or somewhat more, and still thick though looser of texture; presentation can be detected advancing in the natural way; the patient appearing a good deal exhausted from the lack of opium, notwithstanding other stimulants were administered as she could bear.

A supply having been obtained soon after 11, occasional doses were exhibited, both in the form of enema and suppository, till 3 P.M., when half a drachm was consumed—a certain part of it perhaps being ejected as before.

With the re-exhibition of the opium, my patient also gradually regained strength, and along with it, a more effective description of uterine action, by means of which the descent of the head into the pelvis was completed half-past 3 o'clock, when, observing a degree of anxiety amongst the attendants, and the strength of the pains to abate, and feeling anxious likewise for the fate of the child, the forceps were applied, and the delivery of a fine lively son concluded at 4, no resistance being offered by the external parts; the secundines also became separated with the greatest ease,—the uterus again contracting readily without the slightest hæmorrhage.

After the system was fully under the influence of the opium, free vomiting took place, and continued at intervals more or less, till the labour was well-nigh finished; she was entirely exempt from headache during the whole period. When I visited her upon the 11th inst., for the first time, I found her sitting in her arm-chair, from which date she recovered progressively, without the smallest interruption.

N.B.—In this case, as in most others of the kind, the os and cervix uteri, seemed to be in a perfectly callous, torpid state; so much so, that when fully opened, they could not free themselves of the head of the child, but required to be cleared by means of counter-pressure with the fingers. The quantity of opium employed was 2 drachms, but the amount ejected cannot be estimated at less than a fourth part.

On account of the very formidable nature of the above case, and the immense toil and anxiety it cost at the time it occurred; and it being, amongst several others, one concerning which a diversity of opinion may prevail, attention is solicited to the following additional remarks:—

The individual who forms the subject of them, was a handsome, full, well-proportioned woman, having about completed her twenty-fifth year; originally of sound constitution; and who, previous to pregnancy, had always enjoyed excellent health: That in consequence, partly of these circumstances, her system had early become the seat of phlogistic action in a very unusual degree; but which her shyness and want of experience prevented from

being disclosed at a period when its effects might have been rendered much less injurious. This is believed to be well attested by the state of the circulation when I visited her. Had venesection been performed about the sixth or seventh month of utero-gestation, instead of twelve ounces of blood, which could only be abstracted before sinking of the pulse began, twenty-four would have barely sufficed at one, or perhaps two separate operations; thus evidencing the truth of what has been stated at p. 30; the effect of an opposite practice being so apparent, in first exciting, and then debilitating both the generative organs and system at large, to an extent I have never again witnessed in a constitution of such superior excellence.

In balancing the considerations of the case, on the morning of the 6th, when her true situation became known, the only circumstances which augured favourably for its ultimatum were her formerly unimpaired constitution, coupled with the reflection, that what strength she was possessed of, had been economized as far as it possibly could. On the other hand, both the vigour of that fine constitution and tone of the muscular structure were greatly relaxed and weakened. A cause to which the successful issue effected was in no small degree owing, remains yet to be mentioned, viz., the exemption from headach and other febrile symptoms, in consequence of the opium. Had the case been otherwise to any particular extent, the favourable operation of the drug would soon have come to an end. It was with the view to prevent these, more than any other, that the cathartic enema was so often repeated, along with cooling applications.

In the note appended to the sketch above given, it will be remarked, that reference is made to the cervix uteri being morbidly affected—a complication I had then observed before having made it the subject of particular attention. I have since, however, perceived every reason to believe with Dr Hamilton, that whenever the state in question prominently occurs, it never fails to add greatly to the difficulties to be encountered,—and feel therefore of opinion that the evidence derived from the present instance, in connection with the preceding, and cases 7, 10, 16, and 17, will go a considerable length in confirming the statements hazarded at p. 20, respecting it. Of all the other cases treated of, the callosity and insensibility of the organ in that under consideration, when compelled to liberate the head of the fœtus, far exceeded,—it could be compared to nothing save a piece of the coarsest offal hide.

The circumstance of the supposed examination and dilatation of the os uteri on 5th, instead of being omitted in the transcription, as it easily might, has been allowed to remain, in order that another opportunity may be afforded of impressing the mind of the young practitioner with the necessity which exists for the ex-

ercise of care and circumspection in conducting all his examinations.

It is but justice to state, that the subsequent steps of the labour were rendered a little more tedious on account of fatigue having compelled me to go to bed about 1 A.M. of 7th, upon the condition of being called as soon as she awoke out of the slumber in which she was then left—a command which was totally neglected till nearly 5, when it was found she had been a good deal restless for the space of two hours. In calculating the difference as to the probable issue of the foregoing case in the event of no mitigation of the symptoms having been effected previous to the full period of gestation, compared with the present, the evidence is considered to be quite decisive,—so that whilst in both the degree of resistance stood nearly on a par, the subject of No. 18, was far inferior in point of size, as well as natural stamina, to Mrs S.; and that whilst the reduction of the strength, &c. was equally great, the balance preponderated considerably in favour of the latter, on account that her system, independently of greater natural vigour, had never been undermined by previous accouchments or disease, like that of Mrs M.; or, in other terms, had Mrs M. arrived at the completion of pregnancy in the same state in which she was found on 13th April, the chances of a safe termination to her labour would have been still fewer than they were in Mrs S.

In conclusion, I would beg to remark, that but for the sake of active treatment in the one case, previous to, and in the other at the commencement of labour, the belief is confidently entertained, that both would have shared the fate of Nos. 16 and 17.

The idea having suggested itself, that objections may be advanced as to the reality of labour being fully commenced so early as the 5th inst., or second day of my attendance on Mrs S., upon the grounds that the os uteri was not within reach, or discovered to be open. Should any feel so inclined, they are requested to observe that nothing like a *full commencement* is meant; and that should they still farther dispute its existence in the embryo state, and which, but for the fettered condition of the organ, would have passed into its conclusion during the day specified—they will first have to prove that the orifice was not then very similar as when examined on the 6th, although it could not be sooner reached without exercising a force which would have done honour to a Hercules's, or a Sampson's might.

General Practical Observations and Reflections.

Upon subjecting the preceding discussion, respecting the properties of the remedies in question, to the test of a calm and impartial survey, together with the history of the cases related for the purpose of illustration, one or two questions of essential importance present themselves to the discerning and enquiring mind; viz., If the removal of the various causes which obstruct the free progress of labour be of such unquestionable utility, as has been attempted to be proved, and that these can be so fully effected by recourse to venesection and opium, exhibited in the manner also described; is it an uncontrovertible fact, that they only possess the power of exerting such a salutary effect?—Is there no other Balm of Gilead, if not of superior, at least of equal influence in alleviating and shortening the sufferings of the parturient female? In the present state of our knowledge of the laws which define the nature, and direct the treatment of phlogistic and spasmodic action, they lay indisputable claim to be viewed in the light of our sheet-anchor in obstetric practice; all other measures, both of an antiphlogistic as well as a tonic nature, being only secondary and more uncertain in their operation.

Concerning the exhibition of stimulating remedies, chiefly of a spiritous kind, although not specially mentioned in many of the cases, it is to be observed, that they were never withheld in any case where their aid seemed demanded, or could be borne with impunity, and often with marked good effect—the nearer to the termination of the delivery in general, so much the more conspicuous. Their administration by the mouth in any considerable quantity, it is well known, behoved to be rather injurious than otherwise; and by the rectum, unless for the most part much diluted, they would be liable to irritate the bowel, and cause their ejection. It was partly the excitable effect of tinct. opii. upon this viscus, when several times repeated, that induced me to give the preference to the drug in the crude state. Stimulants, upon the whole, are entitled to a much smaller share of confidence than opium, inasmuch as they are deficient of the sedative and hypnotic effects, so absolutely necessary, with which it is endowed. Were cases of the description of Nos. 12 and 13 again to present themselves, the idea of trying a combination of wine and opium has been suggested, as a plan capable perchance of exerting results more favourable than in their separate states.

The class of medicines termed antiphlogistic, are capable of exercising but a very slender influence in all cases where local excitement exists. This, notwithstanding the high estimation in which they have been held by some, will be found to apply particularly to emetics.

With regard to the quantity of opium employed in the greater number of the cases, the design chiefly in view, was to bring, and retain the system as nearly to the equilibrium state as possible, at all events until such time as the first stage of labour was concluded, (see pp. 44, 46). It is only when an infringement is made upon this grand obstetric rule, in all natural cases, that any unusual degree of suffering or untoward event can in general fall to the lot of the parturient female, or the life of her offspring be exposed to danger. That there is little reason to dread its effect in suspending the action of the uterus when administered agreeably to the proper regulations, at a late period of the labour, seems pretty clearly proved by the issue of No. 19, where its influence was almost exhausted before the re-exhibition of the drug on forenoon of 7th, and which it would probably have completed, had not circumstances rendered it in some degree imperative to interfere; a case also which fully establishes the fact, that no possible quantity of opium received by the mother, is capable of exerting any deleterious effect upon her foetus, so long as the life of the former is not endangered.

By the adoption of a line of practice coeval with the advance of parturition, approximating to the nature of that which it has been the object of the preceding pages to unfold, any deviation from the ordinary circumstances attendant upon any individual case, can be more readily detected than otherwise,—it being by means of this that the source of protraction referred to in cases 2, 11, and 13, and of which I possessed no previous knowledge, was eventually discovered.*

With regard to the convalescence of puerperal females, it may be safely asserted, that in every instance where the plan suggested has been put in active operation before, or on a par with the advance of labour, it can be calculated upon on a far more satisfactory footing within the compass of a few days, than otherwise, after a lapse of nearly so many weeks; in proportion to their respective degrees of stamina and habits of life,—whilst such are exempt in a much greater ratio, with moderate care, from weid and subsequent inflammatory attacks.

There can likewise, it is conceived, be little hesitation in affirming, that by means of the same, not only is the tone and healthy function of the generative organs and system at large preserved unimpaired throughout a lengthened succession of pregnancies and confinements, but in the greater number of cases, by the en-

* By a reference to the two last of these, it will be observed, that the morbid state of the placenta is directly mentioned. This was the cause alluded to, respecting which a series of cases was intended to have been included in the present work. Their insertion, however, having been found inconvenient, for reasons void of professional interest, it is proposed to publish them in a separate form, as soon as leisure will permit, when the properties of venesection and opium will be still more amply discussed, as well as an attempt to explain the action of the *Secal. Cornut.* and also the nature of the cases in which benefit is most likely to be derived from its use.

forcement of a rigid subjection to its discipline, the state of these will be found to be greatly improved, where they had become more or less morbidly affected and weakened, on account of neglect and maltreatment incurred at the commencement of their procreative course. In proof of which, the subjects of Nos. 3, 4, 15, 16, and 18, may be especially adduced; whilst the list might be swelled with many additional examples where such effects were equally conspicuous as in these.

The very popular impression imbibed, that repeated utero-gestations and accouchements tend greatly to impair the vigour of the constitution, seems, when minutely investigated, to be quite erroneous,—the result in question being produced more in consequence of the neglect and maltreatment above mentioned, during these states, as well as other discriptions of disease; profuse evacuations of blood; dissipation; and amongst the humbler spheres of life, protracted lactation; over-exertion in the discharge of domestic duties, along with a host of causes, which the mind that is aroused to enquiry will soon discover.

In contemplating the phenomena displayed in the parturient process, the resemblance it bears in its primary relations to that of a musical instrument in the hands of a skilful performer, has often been thought of, and seems very striking. So that whilst, in the latter case, he would himself feel the most discomposed and disgusted of his company, should his harp give utterance to one discordant or unharmonious sound, in like manner only, it is presumed, can the obstetric practitioner be considered competent for the arduous and responsible trust he has undertaken, when his acquirements and determination are such as seldom, if ever, to permit his patient to experience a fruitless, far less an injurious pang.

Comparative View of Parturition betwixt Females in a State of Nature and those in Civilized Life.

In order to complete, as far as circumstances will presently permit, the illustration of a subject concerning which our knowledge is perhaps yet only of the rudimental kind, it remains to enter cursorily into a review of the history of parturition amongst nations or tribes existing in a state of nature, compared with those in the enlightened circles of life.

The universal testimony of travellers, as well as resident physicians, in the countries where the former class is in any degree numerous, tends to the conclusion that the difficulties with which labour is encompassed in the female sex are quite insignificant, when put in the balance with those which affect the latter. Upon making enquiry respecting the causes which give rise to such an amazing difference, the answers generally obtained are such, as to ascribe

it in a great measure, if not wholly, to the simple nature of their food and manner of life, along with constant exposure to, and rugged exercise in the open air.

The opinions of Mr Catlin, in his history of the North American Indians, vol. ii. p. 228, a recent authority of the highest order, and most extensive means of information, are as follow:—After proving the superiority of the Indian system, as he terms it, by the appearance of the hundreds of men engaged in the fur trade, and living continually in the open air,—whom he describes to be the most hardy and healthy race he ever saw, so long as they remain in the country; “nor any,” to use his own words, “who fall to pieces quicker, when they get back to confined and dissipated life, which they easily fall into, when they return to their own country.” He goes on to state, “The Indian women who are obliged to lead lives of severe toil and drudgery, become exceedingly healthy and robust, giving easy birth, and strong constitutions to their children, which in a measure may account for the simplicity and fewness of their diseases, that in infancy and childhood are seldom known to destroy life.”

After alluding to the paucity of Indian births, which he states in one female rarely to exceed 4 or 5,—the seldom occurrence of twins, and also the certain depopulation of the country, had deaths been in a ratio with civilized portions of the world, together with several very interesting remarks respecting the causes of the diminished scale of Indian fecundity; and, at same time, stating his own very ingenious conclusions, as to their nature; “which,” says he, “is the very great length of time that the women submit to lactation, generally carrying their children at the breast, to the age of two, and sometimes three, and even four years;” continues,—“the astonishing ease and success with which Indian women pass through the most painful and trying of all human difficulties, which fall exclusively to the lot of the gentler sex, is quite equal, I have found from continued enquiry, to the representations that have often been made to the world by other travellers who have gone before me.

“Many people have thought this a wise provision of nature, in framing the constitutions of these people to suit the exigencies of their exposed lives, where they are beyond the pale of skilful surgeons, and the nice little comforts that visit the sick beds in the enlightened world; but I have never been willing to give to nature quite so much credit for stepping aside of her own rule, which I believe to be about half-way between,—from which I am inclined to think that the refinements of art, and its spices, have led the civilized world into the pains and perils of one unnatural extreme; whilst the extraordinary fatigue, and exposure, and habits of Indian life, have greatly released them from the natural pains on the other. With this view of the case, I fully believe that nature has dealt every where impartially; and that, if

from their childhood, our mothers had, like the Indian women, carried loads like beasts of burden, and those over the longest journeys and highest mountains, and swam the broadest rivers, and galloped about for months, and even years of their lives, *astride* on their horses backs, we should have taxed them as lightly in stepping into the world as an Indian pappoose does its mother, who ties her horse under the shade of a tree for half an hour, and before night overtakes her companions with her infant in her arms,—which has often been the case.”

Dr Prichard in his work, entitled “ *Researches into the Physical History of Mankind*”, vol. i. p. 112, quoting from that of Dr Rush, “ *On the Diseases and Medicine of the North American Indians*”, says, “ their labours are short, and accompanied with little pain ; and after a few days they return to their usual employment.

At p. 118, after contrasting the opinions advanced by writers on the physical qualities of females in tropical countries, Dr Prichard states, “ the ease with which the women of the negro race are said to bear children, is by no means a circumstance peculiar to them. It has been observed among the females of every savage race.”

A somewhat different, and perhaps a more correct view of the case, is however taken by Dr E. Rigby, in his *Introductory Lecture to Midwifery*, delivered at St Thomas’s Hospital, and recorded in No. 140 of the *London Medical and Surgical Journal*. From certain facts ascertained and related by that gentleman, it does not appear that parturition amongst tribes in a natural and savage state, is of such short duration, and so exempt from suffering, as has been generally represented, chiefly from the circumstance disclosed, that it is the boast of female fortitude to suffer in silence, and only to retire from the presence of her companions when the conflict draws near a close.

It is not, however, it is conceived, so much to the rapidity, or duration of the process, together with its release from pain amongst the migratory tribes, to which our attention ought to be so closely directed, as to the consecutive state of the patients, viz. their almost immediate hardihood and capability of enduring fatigue, as well as future exemption from disease. In farther reflecting on the subject, the question naturally arises, are the causes advanced by Mr Catlin, and slightly touched on by Drs Prichard and Rigby, sufficient to account for the occurrences described? With deference to the opinions of those whose situations have placed them in much more favourable circumstances for observation, the fundamental cause seems to reside in the equally balanced state of the system, in consequence of its freedom from phlogistic action, which prevails in an inverse ratio as amongst civilized nations, as also disease in general,—effects which undoubtedly derive their origin from the habits of life related by

Mr Catlin, along with an equable and constant evaporation from the surface.

In support of the opinion thus advanced, evidence of no small amount is believed to be derived from the manner of life witnessed amongst what is generally termed the gipsy, or wandering tribes, which till a very late period were so widely dispersed throughout our own country. The habits of these people are well known to have been any thing but of the most temperate kind ; notwithstanding they are a healthy and long-lived race ; whilst the labour and convalescence of their females, are only a grade behind their Indian sisterhood ; they being able, with perhaps an occasional exception, to *shoulder the budget* by the second, or morning of the third day, with apparently the effects consequent upon child-birth, as far steeped in forgetfulness as these, and ascribable solely to the same causes ; although the *usquebæ* generally proved their chief comforter and stay, from the commencement to the termination of the ordeal.

The mystery seems to admit of explanation in no other way, than the fact, that continued exposure to the atmosphere counteracts speedily the stimulating effects of spiritous liquors ; and, which seems farther proved, from the freedom from intoxication and disease, wherewith they can be drunk *ad libitum*, in our upland districts, compared with those of less elevation, and in hamlets and crowded cities, where the devotees of the gin-shop can be so eminently distinguished from all others.

Should the views which have been thus briefly stated respecting aboriginal nations be borne out by the candid announcements of more highly privileged investigators, it can scarcely elude perception the aid they are calculated to impart to those entertained, relating to the numerous and varied classes and descriptions of females, who claim from us at least an equal portion of our sympathy and regard. Believing, with Dr Rigby, that the difficulties attendant upon parturition in the former division, are greater than is generally represented, is it a fact placed beyond the pale of contradiction, that in the present advanced state of medical literature, its condition is not capable of improvement to a degree, but a short way inferior amongst many of the latter ? Ought not the more natural and perfect pattern thus presented to the view of the intelligent and philanthropic practitioner, to be as minutely imitated by him as the opportunities of so doing will permit ? And, that whilst the state of the Indian and other uncultivated hordes, in passing unaided through the perilous stages of child-birth, is contemplated with feelings both of admiration and awe, it should never be forgotten, that the same superintending Providence, who alone sustains and affords them such opportune and safe deliverance, is constantly witnessing, whether or not the responsibility devolving upon us shall be discharged with a fidelity and care which we would feel anxious of being exercised towards ourselves.

CONCLUDING NOTE.

In ultimately effecting the issue of the preceding sketch through the press, after such a protracted delay as hath been intimated in the Preface, I feel it incumbent to state, that although my experience in the use of Chloroform as an Anæsthetic agent in midwifery practice has, as yet, been more limited than could have been desired ; I, nevertheless, after a very careful and impartial survey of its virtues, as related by its distinguished discoverer and others, whose opportunities of testing the same have been ample, and their views of the most philanthropic kind, deliver it, in the meantime, as my candid opinion, that, when contrasted with those of Venesection and Opium conjointly, they are less effectual in forwarding the progress of labour in proportion to the degree of the resisting cause.

In the greater number of the histories advanced of its exhibition and operation, it may be observed that only a few leading statistical facts relative to certain of the patients are reported, whilst particular reference to the state of the sanguiferous system and generative organs has but seldom been touched upon. In presenting this remark, I beg it to be understood that I entertain the highest respect for the talents and indefatigable industry of those gentlemen whose names stand most prominent in the prosecution of this interesting and beneficial investigation ; but cannot divest my mind of the conviction, that until this be accomplished in something like a scientific manner, the practical utility derived from all such narrations is much diminished.

There can be no question, however, about its being destined to prove an auxiliary of the most invaluable kind ; and that, in conjunction with those described,—to which may also be added the *Secal. Corn.*,—a means for the alleviation of parturient suffering is disclosed, such as the annals of Midwifery have never before been able to boast of.

If not undertaken by a more masterly hand, it is my intention, as early as circumstances will permit, to analyze somewhat minutely the merits of this remedy in connection with Venesection compared with those of Opium ; when, as may appear warranted, the obligation come under at p. ii. of the Preface shall be duly honoured,—I having possessed but a very slight knowledge of the anæsthetic powers of Æther in surgical practice when the paragraph in question was printed. Until, however, this be accomplished in a manner, which will abide the test of enlightened and impartial scrutiny, the claim of superiority advanced at p. 91 of the Treatise, must be viewed as neither abandoned nor overthrown.

FINIS.